TOC

Disclaimer

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About LiveTime

LiveTime is a comprehensive IT Service Management (ITSM) solution, compliant with all core aspects of Information Technology Infrastructure Library (ITIL) v2011 best practices. LiveTime combines people, process, and information technology so that IT services can align with the needs of the business.

Built on a foundation of data from all areas of the organization, IT can use certified best practices to apply precise control over the levels of service it delivers, predicting potential points of failure, and making real-time decisions for the most efficient and cost-effective outcome.

LiveTime is built to provide a flexible and customizable environment that easily fits your organization. You can leverage native applications for iOS, Android, and other mobile devices to access the console remotely. You can also use more than 140 widgets to create a flexible and customized environment to efficiently monitor progress and carry out your work and these can be extended through the inbuilt custom report writer and/or with the help of our professional services team.

About the Administrator Portal

As an administrator, you can use LiveTime to configure the customized settings within the application, enable or disable user privileges, and control synchronization with third-party tools.

The Administrator Portal has five tabs:

- **User** - Allows you to create accounts for users and customers, and also define user assignment templates for adding users to multiple teams and escalation layers
- **Reports** - Provides you with real-time system and login reports. You can also download system logs here
- **My Account** - Allows you to view and configure your account details or create alerts
- **Setup** - Allows you to define how customers and users can interact with the system, to customize the application, and to synchronize it with third-party tools
- **CMS** - Allows you to configure relationship types, warranty durations, and the Incident Analyzer for problem management

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NOTE If you are logged in to LiveTime as a role other than administrator, you can quickly access the Administrator Portal by clicking **[Setup]** at the right of the menu bar.

What's New?

LiveTime 8.9 enhances search capabilities, email functions, report builder outputs and adds customer requests. Highlights include the following:

- AMIE synchronization tasks are now capable of performing delta scans rather than full scans on the synchronization interval
- CMDB data imports from CSV content has many additional fields that can be specified
- Depreciation calculations have been moved into a background task so a stored depreciated value can be reported on
- Added highlights to several key fields in request management to help users identify time sensitive tasks
- My Tasks list now supports custom fields irrespective of request type
- Request and Item lists in the customer portal can now be customized by the administrator
- Implemented rolling surveys so performance can be monitored and compared to past intervals
- Improved survey results display to aid visibility of performance

For a complete list of new features, fixes, and enhancements in LiveTime 8.9, refer to the *Release Notes*.

Using the Online Help

Online help is available throughout the application if you need assistance with completing a task. The help is context sensitive, so when you open it, you see information that is relevant to the screen you are currently working in.

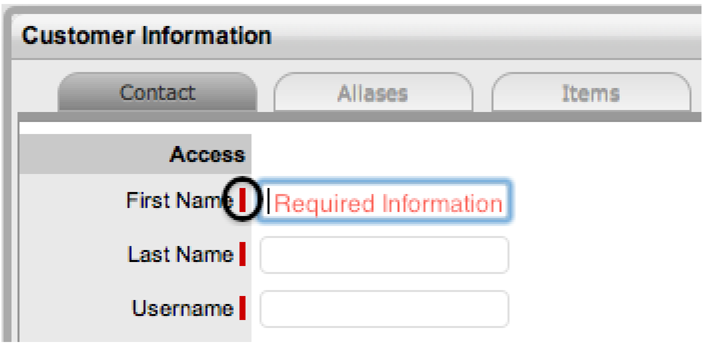
To access the online help, click **Help** at the top right corner of the screen.

Help for the screen you are working in opens in your browser.

Basic Procedures

Within all areas of LiveTime, there are common conventions for working with elements. So whether you are handling requests, customers, items, or item types, the procedure for creating, editing, or deleting these elements is the same.

NOTE When entering details relating to any element throughout the system, required information is marked with a I.



I *Denotes mandatory fields*

Creating an Element

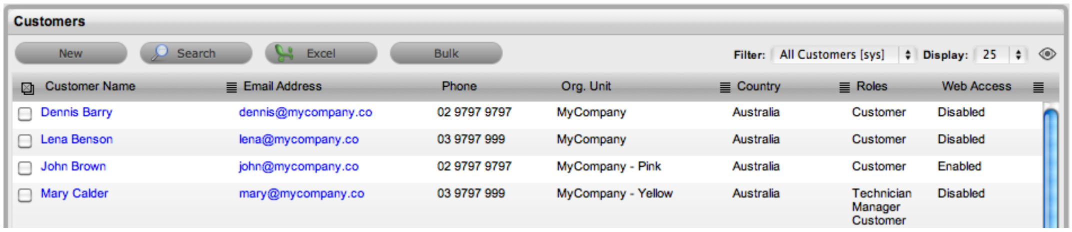
→ To create an element:

1. Navigate to the appropriate section.
   - For example, if you want to create a customer, navigate to **User > Customers**.
2. Click **New** in the upper left corner of the list of customers.
   - A new Customer Information window opens.
3. Fill in the appropriate details.
4. Click **Save**.
   - The new customer now exists in the system and appears in the list of customers.

Editing an Element

→ To edit an element:

1. Navigate to the appropriate section.
   - For example, if you want to edit a customer, navigate to **User > Customer**.
2. In the list of elements, click the link for the entry that you want to edit.
   - For example, to edit a customer, click his or her **Customer Name**. The Customer Information screen opens.



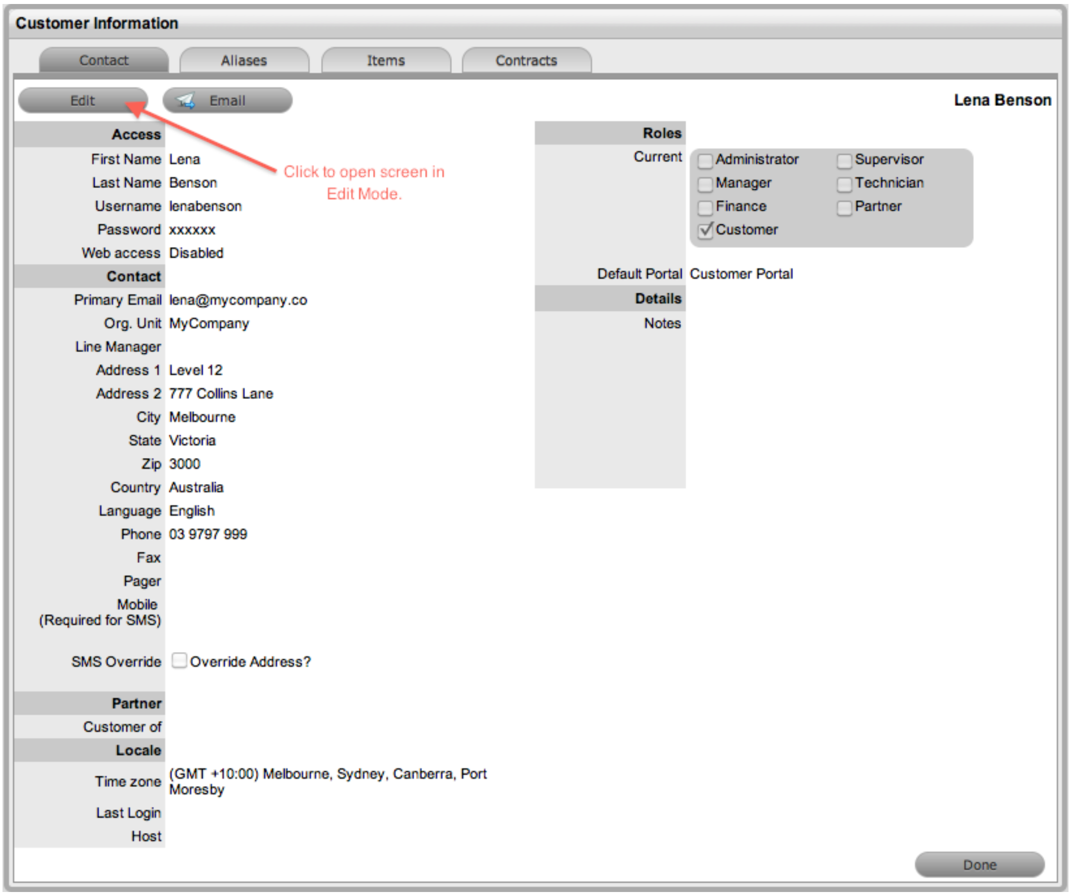
3. Click **Edit** in the upper left of the window.
4. Update the necessary information.
5. Click **Save**.

Deleting an Element

NOTE Not all user roles have the privileges to delete elements. For more information, see User Roles & Privileges.

➔ To delete an entry:

1. Navigate to the appropriate section.
   - For example, if you want to delete a customer, navigate to **User > Customer**.
2. In the list of elements, click the link for the entry that you want to delete.
   - For example, to delete a customer, click his or her **Customer Name**. The Customer Information screen opens.



3. Click **Edit** in the upper left of the window.
4. Click **Delete** at the bottom of the section.

Exporting Lists to PDF and Excel

You can export most lists within the system to PDF and Excel. This functionality is available wherever the PDF and Excel buttons are visible.

NOTE To customize the view of an Excel export, create a list view with your preferred columns, use the list view you created, and click the Excel button. See List Views for more information on customizing a list.

Printing from LiveTime

To print information from LiveTime, use your browser's print functionality. In Internet Explorer, you can print the screen you are currently working in by clicking **File > Print**.

Be sure to enable the print background setting in your browser for better formatted and more user-friendly hard copies of screens. In Internet Explorer, this setting is found here: **Tools > Internet Options > Advanced > Printing > Print background colors and images**.

Navigating within the Application

Use the links and buttons within the application screens, and avoid using your browser's forward and back buttons. Following this guideline ensures the application maintains control of your session and refreshes data appropriately.

"Apply" and "Save" Buttons

In many screens where you edit elements, both the **Apply** button and **Save** button are available. Both buttons save any changes you make within the screen you are working in, but the application's behavior is slightly different:

- When you click the **Apply** button, your changes are saved and you remain in edit mode. This button is useful if you want to save changes intermittently while continuing to work on an element.
- When you click the **Save** button, your changes are saved and you are taken out of edit mode. This button is useful if you have finished working with an element and want to move to another part of the application.

Configuration Steps

Use these basic configuration steps as a guide to assist you with customizing LiveTime for your environment. This process requires you to switch between Administrator and Supervisor roles, so your account must be set up with these two roles while you are configuring LiveTime. You can customize roles for your account within the **User** tab of the Administrator Portal.

At a high level, the configuration process includes the following tasks:

- Enabling the system to work with email
- Setting the privileges for how customers and technicians can interact with the system, and how requests and the system will behave
- Customizing the look and feel of the system, although this can be done at a later stage, if preferred
- Creating customers and users in the system
- Configuring the day-to-day elements within the application, which are part of creating and managing requests, including:
  - Setting the timeframes for managing requests
  - Defining trigger points for escalations by configuring SLAs
  - Detailing the steps a request will move through by customizing workflows, which includes setting the stages of the workflow where timers will trigger automatic warnings and escalations, and defining the team(s) of technicians who will be associated with the customized workflows and SLAs
- Customizing the Configuration Management Database (CMDB)
  - This step is often considered the most complex part of the configuration process, as this is where the service environment, including physical and service items, is mapped into the system with associated relationships. When designing the CMDB, you first create the templates for all the different item categories, then refine them as Item Type templates. These templates define the information recorded and issue classification when customers log requests.
- Importing items using AMIE or CSV files
  - This step includes associating items with customers or organizational units, who can log requests against the assigned items.

Setting Up Billing

If your organization is using billing to manage contracts, it is recommended that you enable this feature before configuring other settings to prevent system disruptions.

→ To enable billing:

1. Log in as the administrator.
2. In the Administrator Portal, go to **Setup > Billing**.
3. Set the **Enable Contracts** option to **Yes**.
4. Complete the required information (see Billing for more information).
5. Click **Save**.

Configuring LiveTime for Your Environment

In the Administrator Portal:

1. **Customize default access for the Supervisor role** (See: User)
   - Include incident management, service level management, and if applicable, request fulfillment, problem management, and change management. Adjust the user timezone, if applicable.
2. **Configure email setup and email messages** (See: Setup > Email)
   - This step allows the system to manage requests via email. After completing the information in the Server and Setup tabs, you can customize the content for automated system emails. While you do not have to complete the content customization at this point, you should at a minimum update the signature included in the automated emails (located on the last page of the Templates tab) to reflect your service organization name.
3. **Enable system privileges** (See: Setup > Privileges)
   - You should review each option in the User, Customer, Request, and System tabs located under **Setup > Privileges**. If you are unsure about what an option refers to, click **Help** in the upper right of the screen for an explanation of each option. Note that you can always adjust these options in the future. Be sure to set the appropriate time zone within the Customers tab before importing customers and users through an authentication server to ensure this setting is correct on all newly created accounts. It is recommended that all users set their own time zone (in the **Home > My Account** tab) during their initial login.
4. **Customize banners and welcome page message** (See: Setup > Customize)
   - You can complete this step now if the images are available, or you can return to this step at a later stage.
5. **Create customers and users, which include Supervisor, Technician, and Partner accounts**
   - If you are using an authentication server to create customer and user accounts, go to **Setup > Authentication**. (See: Setup > Authentication, Active Directory Integration, or LDAP Integration)
   - If you are creating accounts directly in the system using internal authentication, go to the **User** tab. (See: Customers and Users)
   - You can also associate organizational unit information with customers or users in the Supervisor view within the **User > Organizational Units** tab. If your import includes the name of an organizational unit that matches what is recorded in the system, the details from the information recorded internally are applied to the customer or user.
   - When using Active Directory for user authentication, the server-side user group definitions and subgroups must be of the 'Universal Distribution' type. You cannot add the 'Domain User' group or any other security group to a user group. For more information about working with directory servers, see Active Directory Integration.

*Move to the User Portal by clicking **[User]** at the right of the menu bar.*

6. **Set up service level agreements (SLAs)** (See: Service Level Management)
   - If you do not have SLA details at this time, you can use the system's default SLA.
7. **If applicable, create operational level agreements (OLAs) and underpinning contracts (UCs)** (See: OLAs or UCs)
   - If OLAs or UCs are in place at your service organization, you can map them into the system now. Alternatively, you can add them later if needed.

8. **Customize or create workflows** (See: Incident & Problem Workflows and Service Request & Change Workflows)
   - The system includes default workflows across all processes. You may find the default workflows are sufficient, or you may want to customize them to suit your service organization requirements. You can also create completely new workflows if needed.
9. **Create teams** (See: Teams)
   - By default, the system includes a "Process" team and "Unknown" team. You should edit the existing Process team, including defining the way it works, assigning the relevant technicians, associating the workflows that the team will support, and setting the technicians to work in the appropriate escalation layer(s). You should create teams for all processes that the system will manage, such as incident management, problem management, change management, and request fulfillment, although you may find it easier to finish one process first and return to finish the other processes at a later time.

*Move to the Administrator Portal by clicking **[Setup]** at the right of the menu bar.*

10. **Assign default teams and SLAs for requests** (See: Setup > Privileges > Requests)
    - These settings are applied to all newly created items and item types that result from an AMIE import.

*Move to the User Portal by clicking **[User]** at the right of the menu bar.*

11. **Configure the CMDB, by first customizing categories**
    - The system includes a number of default categories under **Configuration > Categories**, which should be sufficient for most organizations. You can customize categories in several ways:
    - Within each category, you can customize the field labels that correspond to the item attributes recorded in the system. (See: Configuration Categories)
    - You can also define the stages that a category can move through in its lifecycle within the **Lifecycle** tab. (See: Category Life Cycle)
    - Finally, you can customize the types of issues that can be reported against a category in the **Classifications** tab. (See: Category Classifications)
12. **Create service type templates and service items**
    - If your service organization wants to fast track the capability to manage requests in the system, you should create service items in the Service Catalog to allow customers and technicians to log and manage requests within LiveTime:
    - Create a type using the service category for each service being offered.
    - Create the service item with the type template you just created. For the service to be available in the Service Catalog, be sure its status is set to an active, non pre-production state. If you want customers to access the service on the Customer Portal, you should also set its Service Item Lifecycle State to Customer Visible.
13. **Create item types** (See: Item Types)
    - If you are not automatically creating types as part of an AMIE or CSV import, you can perform this task in the **Configuration > Types** tab. Here, you can associate the category template with the type template, set the default teams and SLA, and refine the classifications for issues reported against items.
    - If you are importing using a CSV file or AMIE, you can skip this step.

*Move to the Administrator Portal by clicking **[Setup]** at the right of the menu bar.*

14. **Within the Setup tab, complete the item import** (See: AMIE Import or CSV Import)

    - After you successfully complete an item import, a supervisor may have to refine the type templates that the import created if the default settings do not apply. This task does not need to be completed immediately, and can be done on an ad hoc basis (whenever a type template is opened in edit mode, the system will prompt the user to set any required information before saving).

*Move to the User Portal by clicking **[User]** at the right of the menu bar.*

15. **Within the Configuration tab, create items** (See: Items)

    - If you are creating items directly within the system, go to **Configuration > Items**. When you create a new item, you associate it with an item type template, which applies all the default information set within the Categories and Types tabs. You then assign ownership of the item, which could include everyone (a global item), one or more specific customers, or organizational units. You record the specific attributes of an item in the **Details** tab, and you can create relationships with other items in the system within the **Relationships** tab, either now or at some point in the future.
    - You can also map items to services, if required. (See: Service Catalog)

Implementing the Processes

For information on implementing processes, refer to the following topics:

- Request Fulfillment
- Incident Management
- Problem Management
- Change Management
- Release & Deployment Management

Deleting Records

Before you begin to populate the database and use the system, it is important to note that records for customers, technicians, items, item types, and knowledge base categories or articles are only disabled within the application when the **Delete** option is selected, not deleted from the database. This behavior preserves the integrity of your data while maintaining audit trails if they are ever required.

Do not manually deleted records from the database as this action may invalidate existing relationships in the application and cause it to crash.

User Tab

On the **User** tab, you can create, edit, and delete the following elements:

- Customers
- Users
- Assignments

You can synchronize the system with a directory server to import user details. If you want to modify the imported users, you must do this through the appropriate server console, not LiveTime (see Authentication for more information).

Alternatively, you can import customers using a CSV file.

NOTE If you are creating new user accounts directly in the system and want to set up a new administrator, you must do this within the **User** tab of the Administrator Portal.

User Roles

Users can have one of the following roles:

- Technician
- Supervisor
- Partner
- Team Leader

and one or more of:

- Administrator
- Customer
- Finance
- Manager

When users have more than one role, they can easily switch between roles by selecting the **[Setup]**, **[User]**, or **[Customer]** link displayed in the menu bar next to their login name. See Changing Roles for more information.

User Availability

In the user list view, you can find out the availability of users by checking their "Available" status. This status is based on a user's work hours, which are set in the **Schedule** tab, and on his or her vacation status.

The following icons may be displayed in the list view:

Available Status	Description
	The user is not on leave and is available for request assignment based on his or her assigned work hours.
	The user is not on leave but is not available for request assignment based on his or her assigned work hours. Or, if no hours are set within the **Schedule** tab when the **Define Work Hours** option is enabled within **Setup > Privileges > User** and the user is not on vacation, the system will consider the user to be unavailable.
	The user has the **On Vacation** option enabled.

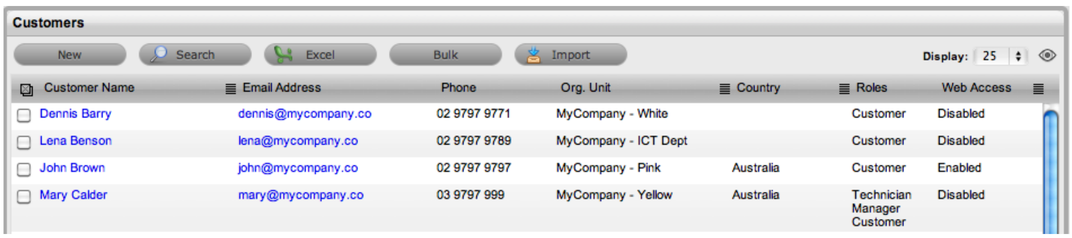
Customers Tab

On the **Customers** tab, you can create, modify, and delete customer accounts within the system.

A customer is a user assigned the Customer Role. They can be internal or external to the organization. Customers can raise, update, and if relevant, approve requests through the Customer Portal or email. Service Desk staff can also generate requests on behalf of the customer.

Within this tab, you can manually create customers or import them from a CSV file. The system also allows you to import and synchronize customers from a directory server (see Authentication for more information).

NOTE If you are importing customers using a directory server and the mixed mode authentication method is disabled, the option to create customers within the **Users** tab is not available.



If your organization is using organizational units (configured by a supervisor) or customer custom fields (configured by an administrator), it is recommended that these features be configured prior to creating customers.

For more information, see the following topics:

- Creating and Managing Customers Using Internal Authentication
- Importing Customers Using a CSV File
- Importing Customers using LDAP/Active Directory Server

Creating and Managing Customers Using Internal Authentication

Use the **Customer Information** screen to create new customers and view and edit customer details. It is also possible to set customer roles, line managers, and default login details.

When you create a customer, the following four tabs are available in the **Customer Information** screen:

- Contact
- Aliases
- Items
- Contracts

Contact Tab

Use this tab to enter contact information for a customer when creating a new account.

NOTE If you plan to create custom fields for use in the **Customer Information** screen, it is recommended that you complete the configuration of these fields prior to creating users. See Custom Fields for more information.

Creating a Customer Account Using Internal Authentication

→ To create a customer account using internal system authentication:

1. Go to **User > Customers**.
2. Click **New**.
3. In the Customer Information screen, enter details for the customer in the following fields:

Customer Information Fields	
Access	
Title	If enabled, select the appropriate title from the list. (This field is displayed if the **Enable Titles** option is set to **Yes** in the **Setup > Privileges > Customer** tab.)
First Name*	Customer's first name.
Last Name*	Customer's last name.
Username*	The login user name credentials for the customer. If this field is imported from LDAP or Active Directory, it cannot be edited. Otherwise, enter a user name. Note that the value must be unique.
Password/Confirm Password	By default, a new customer's password ishis or her email address, or you can enter a random string here by changing the **Passwords** option in **Setup > Privileges > System** (see Authentication for more information). Customers can reset their password from the Customer Portal, or a Service Desk user can reset it in the customer's account details using the **Reset Password** button in the **Customer Information** tab.
Web access	If enabled, web access allows customers to view their account information and incidents through the Customer Portal.
Contact	
Primary Email*	The customer's email address. The customer receives system messages at this

Customer Information Fields	
	address.
Send To	This field becomes when the **Aliases** tab contains alternate email addresses for the customer. Select the most appropriate email address to use as the default for customer correspondence. If the **Send To** field contains an alias address, correspondence is not sent to the customer's primary email address, unless specified in the **Customer CCs** field on the **Request Information** tab.
Org. Unit	The organizational unit (for example, a company or department) associated with the customer. Supervisors can create organizational units in **User > Organizational Units**.
Line Manager	If relevant, assign a system user who can approve and reject requests made by this customer, as part of the change management or service request approval process. (You cannot edit this information if the line manager details are set through LDAP synchronization.)
Room	This field is visible if the **Display Rooms** option is enabled in **Setup > Privileges > Customer** and there are room details configured in organizational units.
Address 1	First line of the customer's address.
Address 2	Second line of the customer's address.
City	The customer's city details
State	The customer's state details. If regions are configured in the system, options display for the state once you select a country.
Zip/Postcode	The customer's area code.
Country	The customer's country. The country selected determines the time zone and state options for the customer.
Email Locale	The default language for email correspondence.
Phone	The customer's phone details.
Fax	The customer's fax number.
Pager	The customer's pager details.
Mobile	You can enter a mobile number as a contact number or for use with SMS (Short Message Service). The system can send an SMS to notify the assigned technician when a request is created.
SMS Override	Select **Override Address?** and enter SMS gateway override details for the customer, if a number other than the one in the **Mobile** field should be used to send and receive updates through SMS. Enter the complete SMS details in email address format; for example, 000777891@smsgateway.provider.com.
Partner	
Customer of	Select the partner organization to associate with the customer. The partner organization is an external service provider who manages the customer's request. (You enable this option in **Setup > Privileges > User > Edit Customer Partner**. Supervisors define partner organizations in the **User > Partner Organizations** tab.)

Customer Information Fields	
Locale	
Time zone	Customers automatically adopt the default timezone set for the system. However, you can manually adjust a customer's timezone here if needed.
Last Login	Auto-populated with the date and time the customer last logged in to the system.
Host	The IP address of the last login for the customer.
GPS	The GPS coordinates of the last known address for the customer. (This field is displayed when the **Record GPS** option is enabled in **Setup > Privileges > Customer**.)
Roles	
Current*	You can assign multiple roles to a customer here. NOTE If you select the Technician role, you must also allocate a Supervisor.
Default Portal	The user interface customers assigned multiple roles access by default when they log in to the system. NOTE If you set the customer's Default Portal to **Customer**, his or her user details are not accessible in the Users list, but included in the list within the **User > Customer** tab.
Details	
Notes	Enter any relevant information about the customer here.

** Denotes mandatory fields*

4. Click **Done**.

Emailing Customer Credentials

To email newly created customers the details of their system login, click the **Email** button within the **Customer Information** screen. If the **Passwords** option in **Setup > Privileges > System** is set to **Random**, clicking **Email** resets the password and forwards the details to the customer. If **Password Questions** is enabled in **Setup > Privileges > System**, clicking **Email** sends a link to the customer directing him or her to a security questions page and resets the password based on the answers provided. Customers must complete this process within an hour of the email being sent.

Downloading Customer Information in vCard Format

Click the **vCard** button within the **Customer Information** screen to download and open the customer's information in an electronic business card format (vCard), which you can email or save outside the system.

Aliases Tab

Use the Aliases tab to enter additional email addresses for a customer. Email addresses in the Aliases tab allow the customer to send emails to the system or to team support addresses from more than one address. The system then creates requests from these customer emails. The system sends notifications for requests created using an address in the Aliases tab to the customer's main email address and also copies the alias address used to create the request.

If you create one or more alias email addresses for a customer, a **Send To** field is shown on the Customer Information screen, which allows you to set the most appropriate email address as the default for customer correspondence. If you set the **Send To** field to an alias address, the customer's primary email address is not included in the cc list, unless specified in the **Request Information** tab cc list.

Adding an Alias Email Address

→ To add an alias email address for a customer:

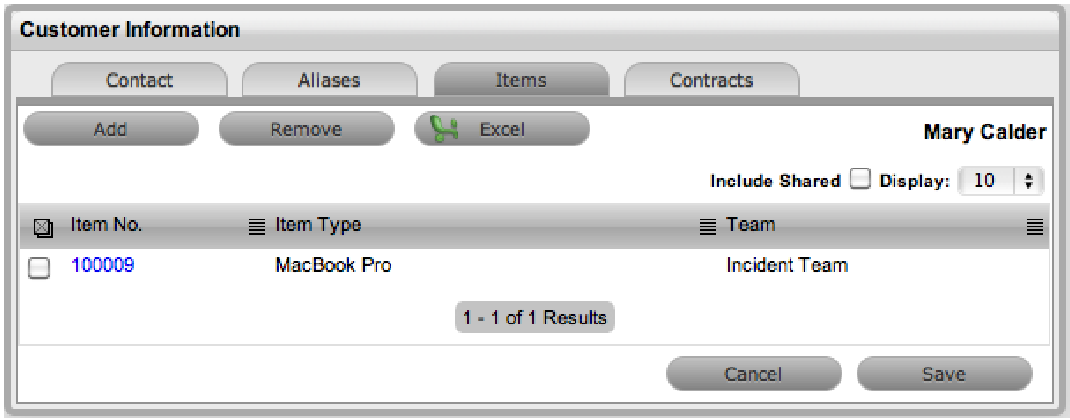
1. Go to **User > Customers**.
2. Select the customer name.
3. In the **Aliases** tab of the **Customer Information** screen, click **Edit**.
4. Click **Add**.
5. Enter an alias email address.
6. Click **Save**.
7. Click **Done**.
    - After you create an alias email address for a customer, a **Send To** field is shown on the **Customer Information** screen, which allows you to set an alias email address as the default for customer correspondence.

Removing an Alias Email Address

To remove an alias email address, in the **Aliases** tab, click **Edit** and select the checkbox next to the relevant email address, then click **Remove**.

Items Tab

When you first open the **Items** tab, it lists all items assigned to the customer. To view shared items, select the **Include Shared** option. To view the details of an item, select the **Item No.** hyperlink. Click the **Excel** button to output the item list to Excel format.



Adding an Item

➔ To add an item to a customer:

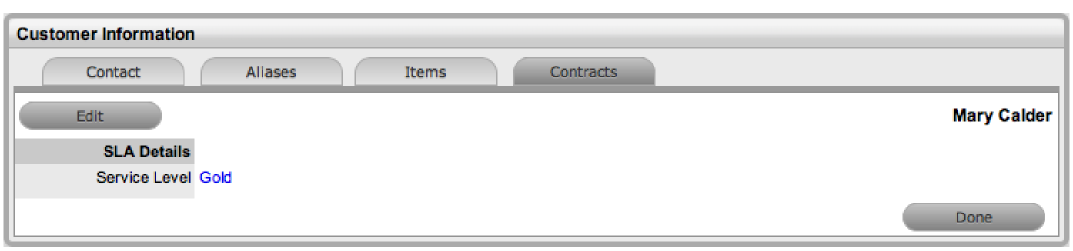
1. Go to **User > Customers**.
2. Select the customer name.
3. In the **Items** tab of the **Customer Information** window, click **Edit**.
4. Click **Add**.
5. In the **Find Item** page, search for the relevant item.
   - For details regarding an advanced item search, see Advanced Search.
6. Select the **Item #** hyperlink of the item you want to associate with the customer.
7. Click **Save**.
8. Click **Done**.

Removing an Item

To remove an item, in the **Items** tab, click **Edit** and select the checkbox next to the relevant item, then click **Remove**.

Contracts Tab

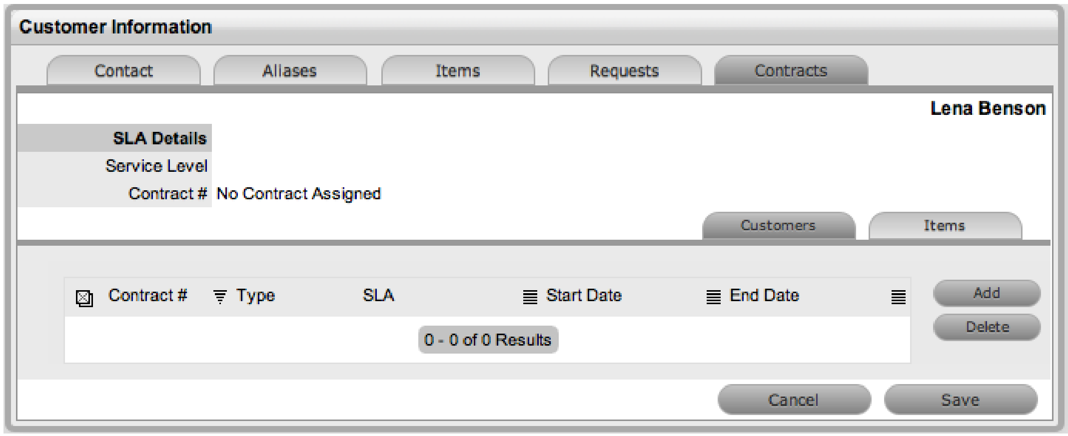
The **Contracts** tab shows a customer's current contract status. Customers can have an SLA or contract associated with them when the **Enable Contracts** option in **Setup > Billing** is enabled. A customer can have only one active contract.



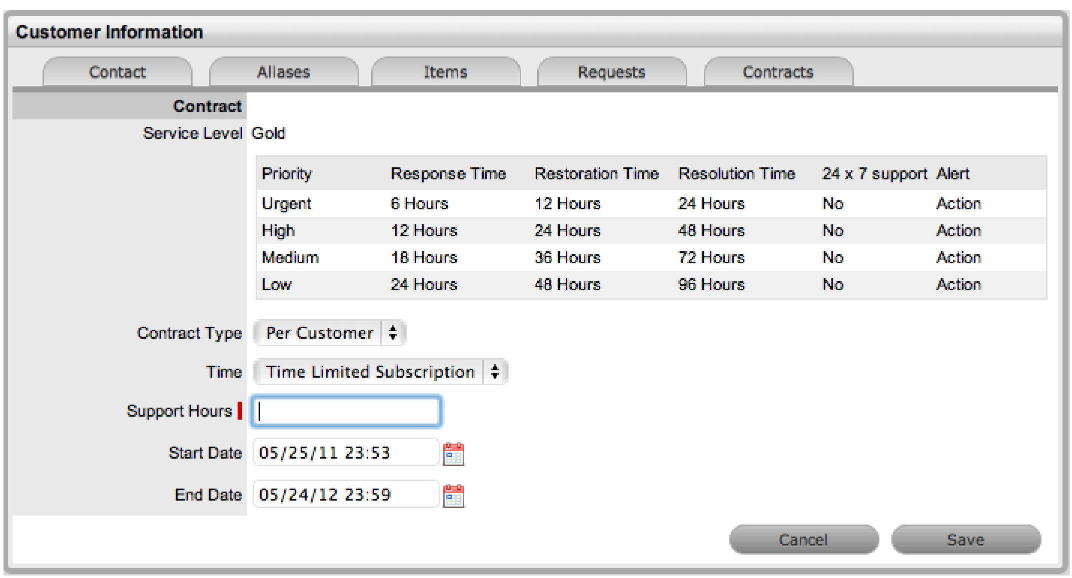
Creating a New Contract

➔ To create a new contract for a customer:

1. Go to **User > Customers**.
2. Select the customer name.
3. In the Contracts tab of the Customer Information screen, click **Edit**.



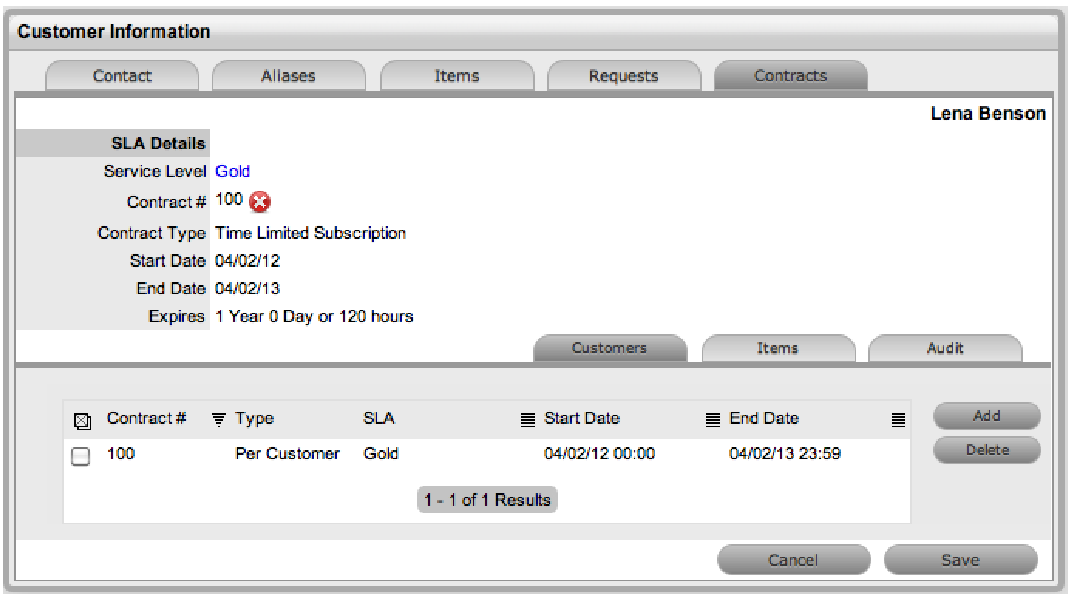
4. Click **Add**.
5. Select a service level from the list.
   - When selected, the screen expands to display the **Time**, **Start Date** and **End Date** fields.



6. Define the contract time period by selecting an option from the **Time** list and completing the necessary fields.
   - For the **Per Customer** contract type, the following options are available:
   - **Subscription**: The **Start Date** and **End Date** are automatically completed by the system, but can be edited if required.

- **Time Limited Subscription**: The **Support Hours** field is shown where you should enter the number of support hours the customer purchased. Also, you should complete the **Start Date** and **End Date** fields manually, entering the length of time for the subscription period.
- **Support Hours**: You should enter the number of support hours the customer purchased.
- **Support Hours By Month**: You should define the number of support hours covered per month and on which day of the month the contract is designated as the rollover day. The **Start Date** and **End Date** fields are automatically completed as an annual contract subscription, but can be edited as required.
  If the **Start Date** is set as a future date, the Pending Contract status is assigned (see Pending Contracts for more information).

7. Click **Save**.
8. Click **Next**.



9. On the Contracts tab, click **Save**.
10. Click **Done**.

Deleting a Contract

To delete a current contract, click next to the contract number. Alternatively, to delete a current or queued contract, within the **Contracts > Customers** tab select the checkbox next to the relevant **Contract #** and click **Delete**.

Items Tab

You can use the **Items** tab within **User > Customers > Contracts** to view all the items with a contract that the customer owns.

Audit Tab

You can use the **Audit** tab within **User > Customers > Contracts** to view the list of requests with the time recorded against the contract. The **Summary** view shows the list of requests with total number of notes and time allocated to the contract, while the **Detail** view includes a breakdown of all notes and the associated time related to each request.

Searching for Customers

➔ To search for Customers within the Users>Customers tab:

1. Go to **User > Customers**.
2. Click **Search**.
3. Enter any known customer details.
   - Or, for a complete customer list, enter a **Created Before** or **Created After** date.
4. Click **Search**.
   - The results are shown in a table with the customer name and contact information.
5. Select the customer name to open the Customer Information screen or select the email address to send an email to the customer.

Re-enabling Deleted Accounts

As an administrator, you have the ability to reactivate deleted customer accounts.

➔ To enable a deleted account:

1. Within the **User > Customers** tab, click **Search**.
2. Toggle the **Account Status** option to **Deleted**.
3. Click **Search**.
   - A list of deleted customers is shown.
4. Select a customer to re-enable.
5. In the Customer Information screen, click the **Enable** button to reactivate the account.
   - The customer account becomes active and is available within the system.

Importing Customers Using a CSV File

You can import customers instantly using a CSV (comma-separated values) text file.

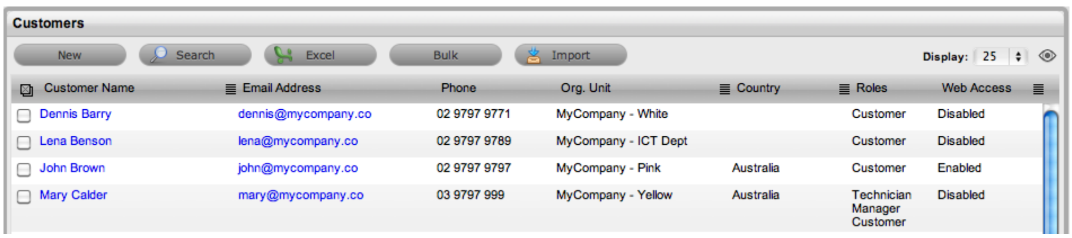
The following fields are required within the text file for importing customers:

- First Name
- Last Name
- Email Address
- Username (this value must be unique)
- Password

➔ To import customers using a CSV file:

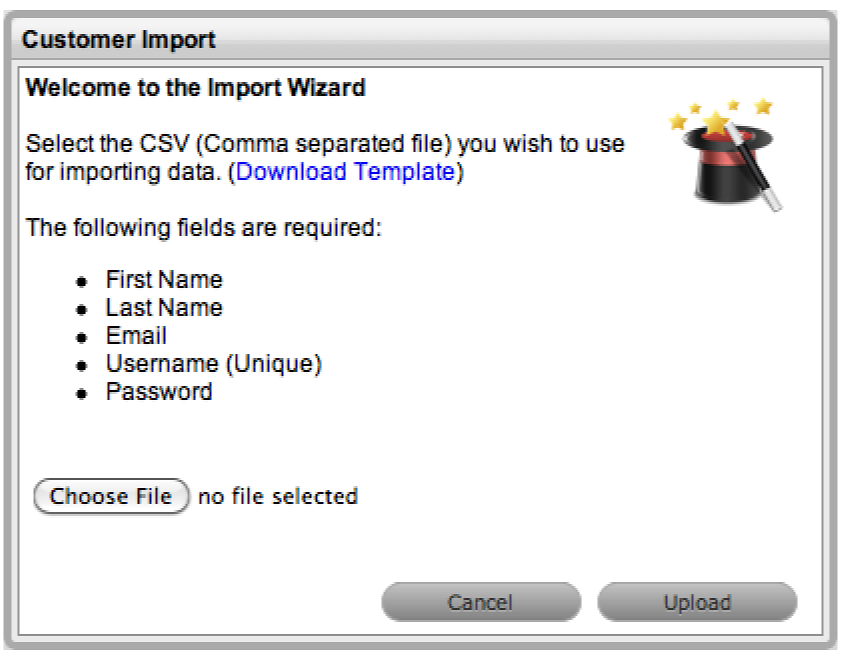
1. Go to **User > Customers**.

   The **Customers** screen opens.



2. Click **Import**.

   The **Customer Import** wizard opens.



To view a template that illustrates the fields the application is looking for and the data types (see below), click the **Download Template** link.

The following fields should be visible in the CSV file:

Title (char 128),First Name (char 64), Last Name (char 64), Email Address (char 64), Company (char 64), Department (char 64),Primary Company Contact (int 1), Primary Department Contact (int 1),Address 1 (char 128), Address 2 (char 128), City (char 64), State (char 32), Postcode/ Zip (char 20), Country (char 64), Phone (char 20), Mobile (char 20), Fax (char 20), Pager (char 32),

The designation in parentheses after each field name signifies what type of data the import utility expects to see in each field. For instance:

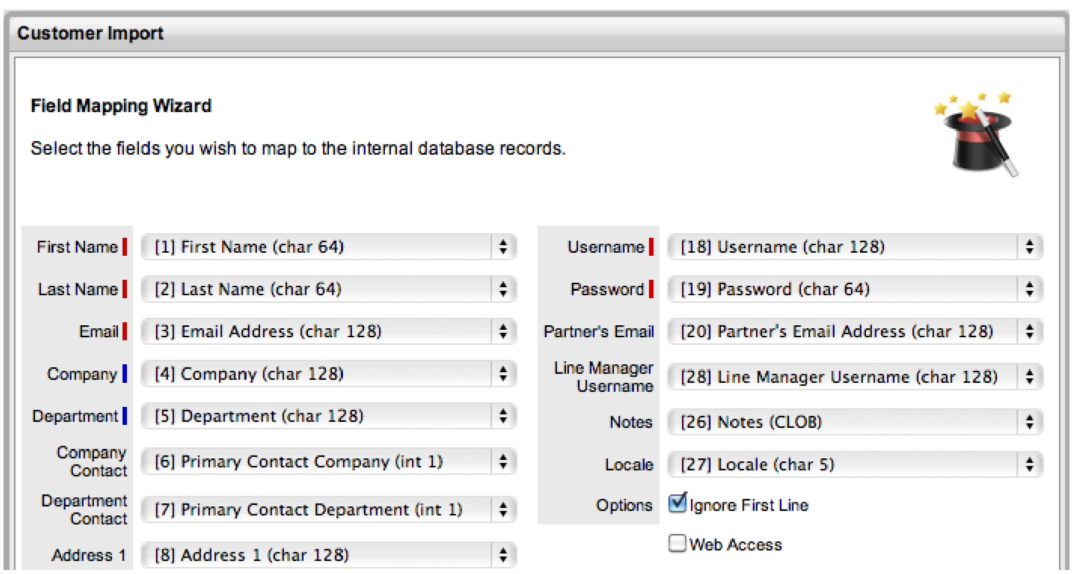
- ’First Name (char 64)’ means that the first name field cannot exceed 64 characters.
- 'Company Contact (int 1)' means that a 1 in the field will assume the customer is the primary contact for the company. If the field is left empty or completed with a zero, the system assumes the customer is not a primary contact.
- Fields marked as ‘Unique’ must be unique in the system.
- 'Locale (char 5)' is the email locale for the customer and, if empty, is set to the option selected in the **Default Locale** field in **Setup > Email > Setup**.
- 'Line Manager Username (char 128)' is the customer's username as recorded in the system or to be created as part of the CSV import.

If the Partner option was enabled in the application setup, you can assign a partner to a customer by defining the 'Partners Email' field within the CSV file.

NOTE The name specified in the 'Country' field must be the same as what is found within the application. If the spelling is different in the CSV file, a customer's country details will not be imported.

3. Click **Choose File** and select a CSV file to use for the import.
4. Click **Upload**.

   The system shows you a list of fields that are mapped to the corresponding fields in the CSV file.



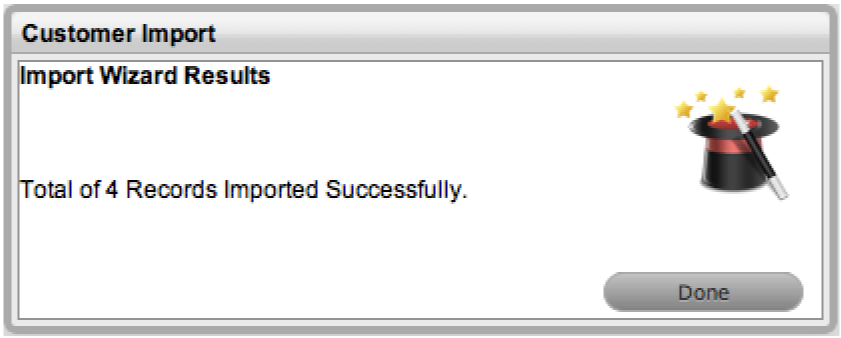
* Fields marked with a I are mandatory.
* Fields marked with a I that do not contain matching system records automatically create new records in system.

5. Adjust mapped fields, if necessary.

6. Select the **Ignore First Line** option if the imported CSV file uses its first line as a header to define the field information. Leave the box unchecked if the CSV file begins with usable data.
7. Select the **Web Access** option if you want the imported customers to have immediate access to the Customer Portal.

   If you do not select this option, customers will not be able to log in to the application until they are given web access within the **Customer Information > Contact** tab.
8. Click **Import**.

   The results of the import attempt are shown. If the import was successful, the new customer details are now available in the system.



9. Click **Done**.

   After you complete the customer import, you may be required to manually configure additional fields, including the following:

   - Room (if relevant)
   - User Roles

Importing Customers Using LDAP/Active Directory Server

You can connect the application to a directory server for customer and user authentication purposes. This process removes the need to create customer and user accounts, allowing you to work with infrastructure already in place to synchronize accounts and access levels with an existing directory server.

As part of the mapping process, if a value does not exist on the directory server for a mapped field, a drop-down menu will not be available in LiveTime for that field, nor will users be able to edit it.

If you use a directory server, a customer’s password is not visible within LiveTime, regardless of whether the customer is new or existing in the system. This is because the system validates the customer’s account against a directory server account rather than an internally authenticated account. The customer's password resides in the directory server’s database and is therefore not accessible through LiveTime.

Also, customers using LDAP or Active Directory authentication are not able to edit their first name, last name, LDAP/ADS username, or email address. These fields are stored on the directory server, and cannot be modified within LiveTime.

To import customers using a directory server, see Authentication.

Users Tab

The **Users** tab allows you to create, modify, and delete user accounts in the system.

Users can have **one** of the following roles:

- Technician
- Supervisor
- Partner
- Team Leader

and one or more of:

- Administrator
- Customer
- Finance
- Manager

It is possible for users to have multiple roles. For example, technicians may also be assigned the Customer role so they can log requests related to their own equipment. When a users have more than one role, they can switch between interfaces easily (see Changing Roles for more information).

You can create user accounts within the application or import them from one or more directory servers.

If you are using custom fields for users, you should configure these fields prior to creating users (see Custom Fields for more information).

For more information, see the following topics:

- Creating User Accounts Using Internal Authentication
- Importing User Accounts Using LDAP/Active Directory Server

Creating and Managing Users Using Internal Authentication

If you are creating users within the system that are to be assigned to support teams, you must allocate one of the following roles to them:

- Technician
- Team Leader
- Supervisor
- Partner

Only the above user roles can work on requests. For more information regarding specific user roles in the system, see About User Roles.

When you create a new user, the following tabs are available:

- Information
- Schedule
- Aliases
- Team
- Skills
- Types

Information Tab

Within the Information tab, you can create, view, and edit user details. You can also customize user roles, process assignment, and default logins within this tab.

Creating a User

➔ To create a user:

1. Go to **User > Users**.
2. Click **New**.
3. In the **User Information** window, enter details for the new user.

User Information Fields	
Title	Select a title from the list. (This field is displayed if the **Enable Titles** option is set to **Yes** in **Setup > Privileges > Customer**.)
First Name*	Enter the user's first name.
Last Name*	Enter the user's last name.
Username*	Enter a system user name (this value must be unique).
Password*	Enter a password for the user. NOTE You can change passwords in the **Users** tab or users can reset their password under their **My Account** tab.
Roles*	Assign a role for the user. Each role has associated permissions (see Roles for more information). Every technician must be assigned to a supervisor.

User Information Fields	
	NOTE While you can assign more than one role to a user, a user can have only one role of Supervisor, Team Leader, Partner, or Technician.
Default Portal*	Select the interface that a user with multiple roles accesses by default when he or she logs in to the system. NOTE If the user's default portal is set to **Customer**, his or her user details will not be accessible in the **Users** list, but included in the list within the **User > Customers** tab.
Assignment Template	This option is visible if job assignment templates are configured in the **User > Assignments** tab. Select a template to assign the new user to multiple teams, escalation layers, and processes.
Operations Processes	Assign the licensed access for request fulfillment, incident management, and problem management. Assigning processes to users gives them access to support those processes and enables them to be assigned as team members for those processes' teams. See User Processes for more information.
Change Processes	Assign the licensed access for change management, release management, and deployment management. NOTE Users assigned release management are automatically assigned deployment management.
Internal Processes	Enable the user's privilege to maintain service level management, configuration management, and knowledge management. Selecting the **Configuration** and **Knowledge** options displays additional fields that enable you to set granular controls for those processes. NOTE The Finance role is limited to the processes of configuration management and service level management.
Knowledge	If the knowledge management process is enabled for the user, you can configure his or her privilege to create, edit, delete, and publish knowledge base articles (KBAs).
Configuration	If the configuration management process is enabled for the user, you can configure their privilege to create, edit, and delete Items within the CMDB on a per-task basis.
Customer Org Unit	This field is visible if the user is also a customer within the system. Enter company or department details that apply to the user in their role as a customer.
Line Manager	This field is visible if the user is also a customer within the system. You cannot edit the information if the line manager details are set by LDAP synchronization. If relevant, assign a system user with the Customer role who can approve/reject requests made by this customer.
Primary Email*	Enter the user's email address. System messages are sent to this address.
Send To	This field is visible if the user is also a customer and has alternate email addresses entered on the **Aliases** tab. Select the most appropriate email address to use as the default for customer

User Information Fields	
	correspondence. If you set the **Send To** field to an alias address, the primary address is not included in the cc list, unless specified in the cc list of the **Request Information** tab.
Phone	Enter telephone details.
Mobile	You can enter a mobile number as a contact number or for use with SMS (Short Message Service). The system can send an SMS to notify the assigned technician when a request is raised.
SMS Override	Select **Override Address?** and enter SMS gateway override details for the user, if a number other than the one in the **Mobile** field should be used to send and receive updates through SMS. Enter the complete SMS details in email address format; for example, 000777891@smsgateway.provider.com.
Fax	Enter fax details.
Pager	Enter pager details.
Salary	You can enter an annual salary. The system uses this value for reporting.
Chargeback Rate*	This field is available when the **Enable Chargebacks** option is enabled at **Setup > Advanced > Billing**. Select the default hourly rate this user should charge for services rendered. The selected rate is used when the user bills customers in arrears for support they have received in response to a request, unless the user adjusts the rate manually within the request. Chargeback rates available here are defined in the User Portal at **Finance > Chargeback** by users with the Finance role.
Forum Moderator	Select this option to designate the user as a forum moderator. See Forums for more information.
Survey Manager	Select this option to allow the user to create and manage surveys in the system.
Supervisor*	Select a supervisor if the user is a technician. You must allocate a supervisor to users with the Technician role.
Partner For	If you assign a user the Partner role, you must also assign his or her associated partner organization in this field.
Partner	If the user is also a customer, this field allows you to associate the customer with a partner organization who will handle his or her requests when logged in the system.
Available	Shows if the user is available to take on requests. This availability is based on work hours configured in the user's **Schedule** tab and his or her vacation status. If no hours are set within the **Schedule** tab when **Define Works Hours** is enabled within **Setup > Privileges > User** and the user is not on vacation, the system will consider him or her to be unavailable.
Assignment	This field is visible when **Assignment Control** is enabled in **Setup > Privileges > User**. Set to **Off** if the user should not be assigned new requests, irrespective of their availability status.
On Vacation	Placing technicians on vacation excludes them from being assigned new requests automatically. When **On Vacation** is activated, the system does not reassign a technician's existing requests.
Survey Opt	Set to **Yes** if you want to exclude this user from all future customer surveys.

User Information Fields	
Out	
Training	This option is only visible for technicians, and when enabled, allows them to be included in teams to view requests but does not allow them to put the request in edit mode or add notes.
Email Locale	Adjust the default language for email correspondence, if required.
Country	The user automatically adopts the default country set for the system. However, you can manually adjust the country here for the specific user.
State	Set the state information based on the country selected, if required.
Time zone	The user automatically adopts the default time zone set for the system. However, you can manually adjust the time zone here for the specific user.
GPS	The GPS coordinates of the last known address for the user.

** Denotes mandatory fields*

4. Click **Done**.

Emailing User Details

To email users regarding their system log in credentials, click the **Email** button within the **User Information** screen. If the **Passwords** option in **Setup > Privileges > System** is set to **Random**, clicking **Email** resets the password and forwards the details to the user. If **Password Questions** is enabled in **Setup > Privileges > System**, clicking **Email** sends a link to the user directing him or her to a security questions page and resets the password based on the answers provided. Customers must complete this process within an hour of the email being sent.

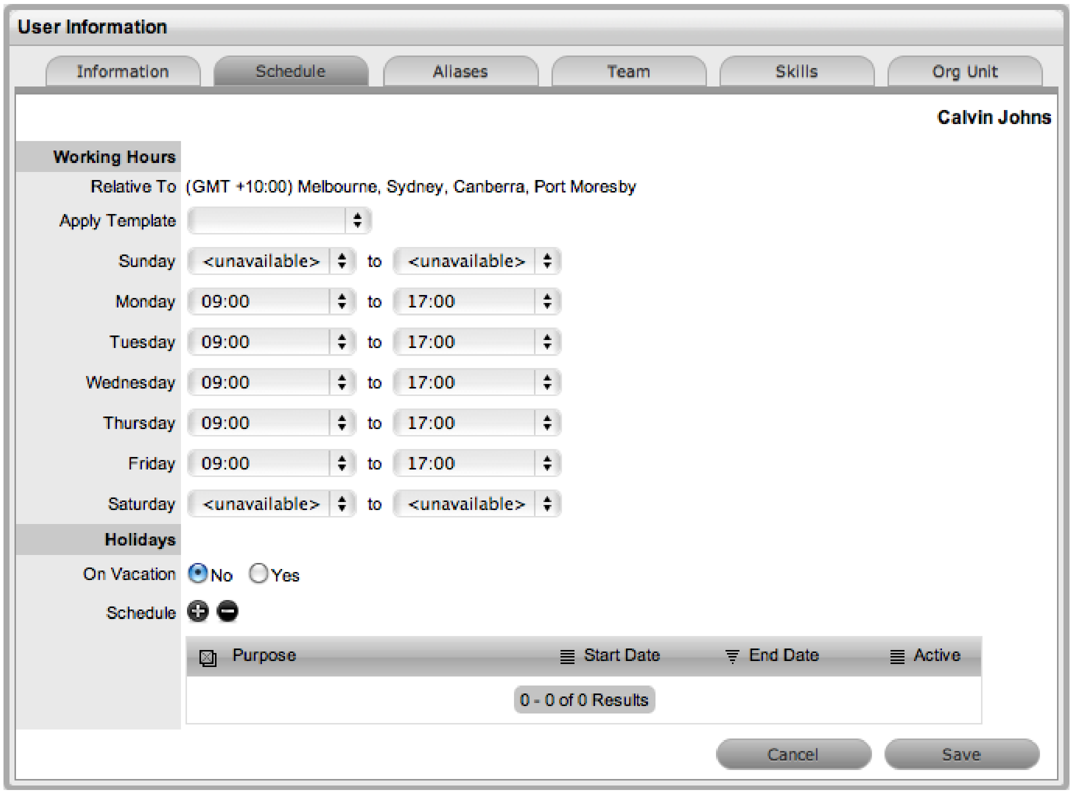
Downloading User Information in vCard Format

Click the **vCard** button within the **User Information** screen to download and open the user's information in an electronic business card format (vCard), which you can email or save outside the system.

Schedule Tab

By default, the **Schedule** tab includes the **On Vacation** option, which you can set to **Yes** when the user takes leave. The system automatically reassigns the user's active requests if the **Vacation Reassign** option is enabled in **Setup > Privileges > User**. If this option is not enabled, a supervisor needs to manually reassign the requests, if required.

If the **Define Work Hours** and **Scheduled Vacations** options are enabled in **Setup > Privileges > User**, this additional functionality is available within the **Schedule** tab.



Defining Work Hours

Use the lists under **Working Hours** to set the hours of work when the user is available during the week. Based on what is set here, the system assigns requests to the users during their available hours. However, if no other technicians are available for requests based on their defined work hours, the system assigns users new requests outside of their set work hours.

NOTE If the **Define Work Hours** option is enabled, you must define the hours of work for technicians, otherwise the system ignores the technician assignment logic and automatically allocates new requests to the team lead.

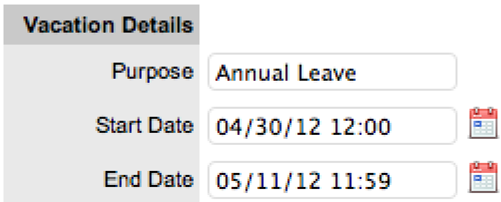
Scheduling Leave

The **Scheduled Vacation** option allows supervisors to pre-book leave in the system for users. There are no restrictions on the number of days that can be set as vacation, and based on the configuration, when a leave period begins, the system automatically reassigns active requests to other available users applying the technician assignment logic. If a request was initially drawn from a queue, it does not return to the queue but is reassigned to the most relevant technician based on the technician assignment logic.

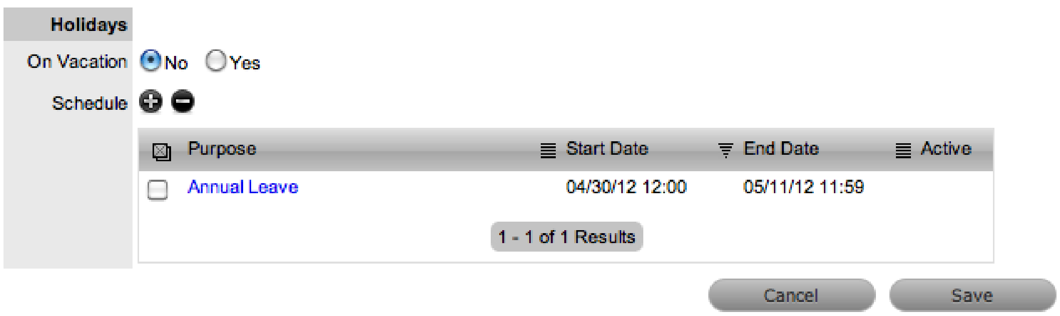
→ To schedule user leave as a supervisor:

1. Go to **User > Users**.
2. Select the name of the user.
3. Click the **Schedule** tab.
4. Click **Edit**.

5. Select to expand **Vacation Details**.
6. Enter the reason for leave in the **Purpose** field.

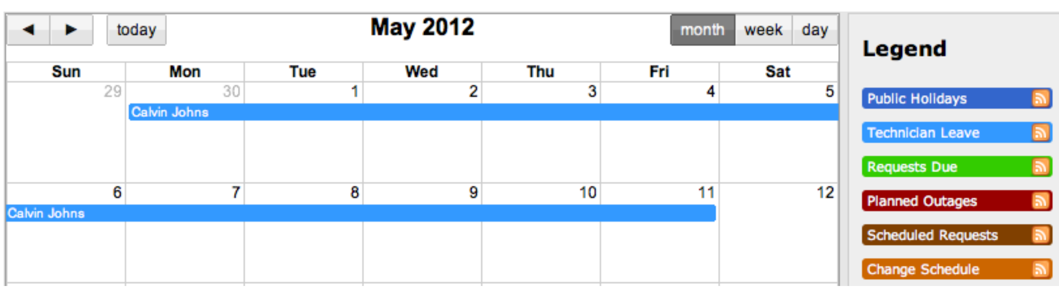


7. Complete the **Start Date** and **End Date** details.
8. Click **Save**.
   - When the **Start Date** arrives, the system stops assigning new requests to the user. After the scheduled **End Date**, the user again becomes available.



NOTE If the user on vacation is a team lead for any team that has no technicians available for new request assignment, the system allocates new requests to the team lead, regardless of his or her vacation status.

   - When you log in to the system as a supervisor, the events calendar in **Home > Calendar** shows when users are on vacation:



Aliases Tab

Use the **Aliases** tab to enter additional email addresses for a user. Email addresses in the this tab allow the user to send emails to the system or to team support addresses from more than one address. The system then creates requests from these emails. Notifications for requests created using an address in the **Aliases** tab are sent to the user's main email address and copied to the alias address used to create the request.

NOTE This tab is applicable only if the user has the Customer role.

When you create one or more alias email addresses for a user, a **Send To** field is shown on the Customer Information screen, which allows you to set the most appropriate email address as the default for customer correspondence. When the **Send To** field is set to an alias address, the user's primary email address is not included in the cc list, unless specified in the **Request Information** tab cc list.

Adding an Alias Email Address

→ To add an alias email address for a user:

1. Go to **User > Users**.
2. Select the user's name.
3. In the **Information** tab of the **User Information** screen, click **Edit**.
4. Click the **Aliases** tab.
5. Click **Add**.
6. Enter an alias email address.
7. Click **Save**.
   - After you create an alias email address for a user, a **Send To** field is shown on the **User Information** screen, which allows you to set an alias email address as the default for customer correspondence.

NOTE Aliases are applicable only if the user has a Customer role.

Team Tab

The **Team** tab lists teams associated with the selected user. Use this tab to assign the user to one or more support teams, making the additions by team or job assignment templates that are configured in the system. Processes selected in the **Information** Tab for the user determine the teams available in the **Team** tab.

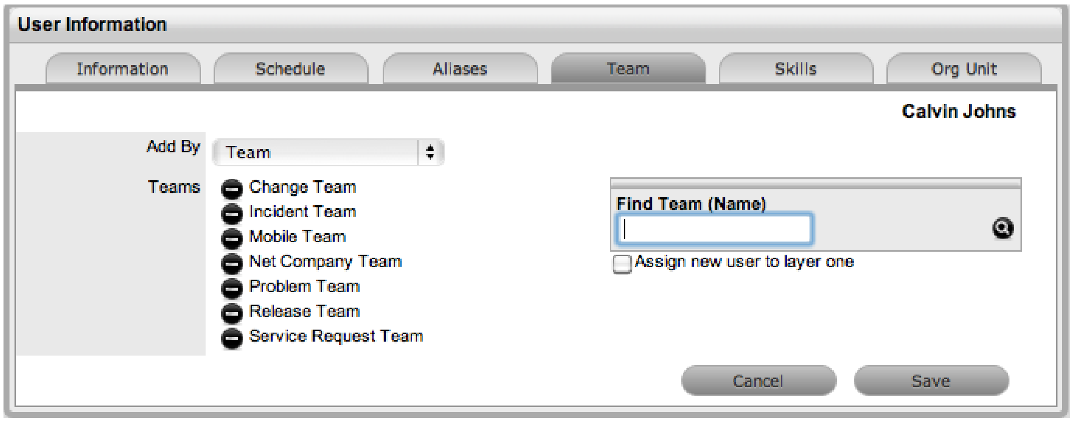
Once you assign a user to a team, a supervisor must configure the escalation layers for the team to include the new user. However, you can easily add the user to layer one of escalation when you associate him or her with a new team by selecting the **Assign new users to layer one** option within this tab. Also, if assignment templates exist in the system, by selecting a team template, you can automatically add the user to teams, escalation layers, and work groups configured within the selected template.

NOTE The user must have the relevant processes enabled for support teams to show in team search results. If you select an assignment template and it includes teams for processes not enabled for the user, those teams will not be available for addition.

Adding Users to Teams

→ To add a user to a team within the **Team** tab:

1. Click **Edit**.

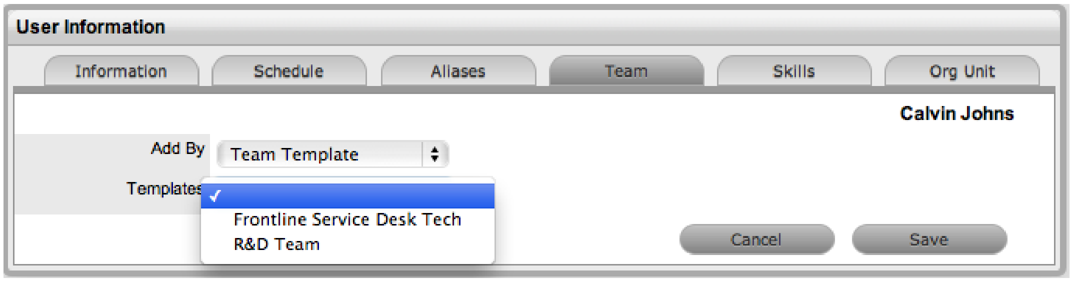


2. Ensure **Team** is selected in the **Add By** list,
3. Enter a team name in the **Find Team (Name)** field and click .
   - Or, leave the field empty and click . The teams for processes that the user is assigned are shown in the search results.
4. Select the **Assign new user to layer one** option, if relevant.
5. Select a team name from the search results.
6. Click **Save**.

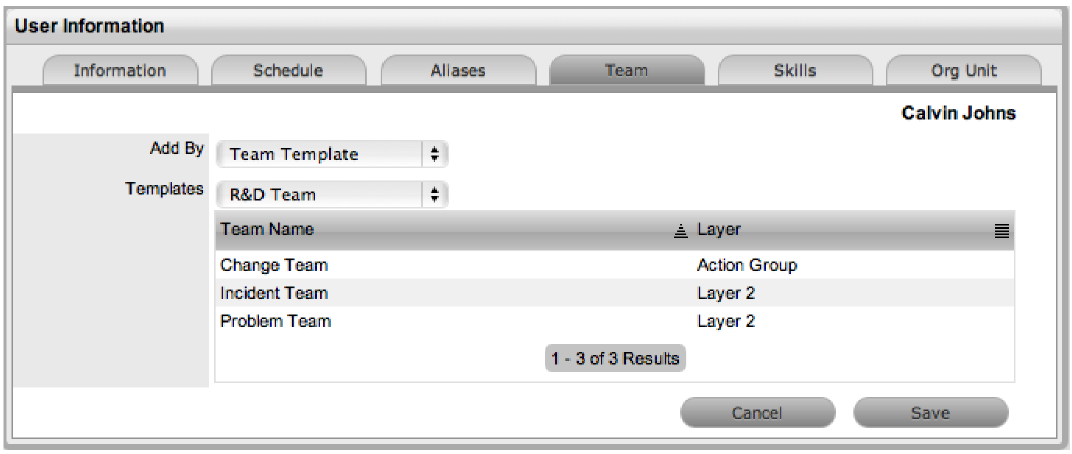
Adding Users to Teams Using Assignment Templates

→ To add a user to a team within the **Team** tab using assignment templates:

1. Click **Edit**.
2. Select **Team Template** from the **Add By** list.
   - Job assignment templates that have been configured in the **User > Assignments** tab are shown, but only including teams consistent with the processes assigned to the user.



3. Select one or more template options.
4. Click **Save**.
   - The user is automatically included in the teams, escalation layers, and work groups configured in the template.



Removing Users from Teams

→ To remove a user from a team:

1. Go to **User > Users**.
2. Select the name of the user.
3. Click the **Team** tab.
4. Click **Edit**.
5. Select ⊖ to remove a team assignment.
6. Click **Save**.
7. Click **Done**.

NOTE If a user is the team lead or the only person assigned to an escalation layer, he or she cannot be removed from a team under this tab.

Skills Tab

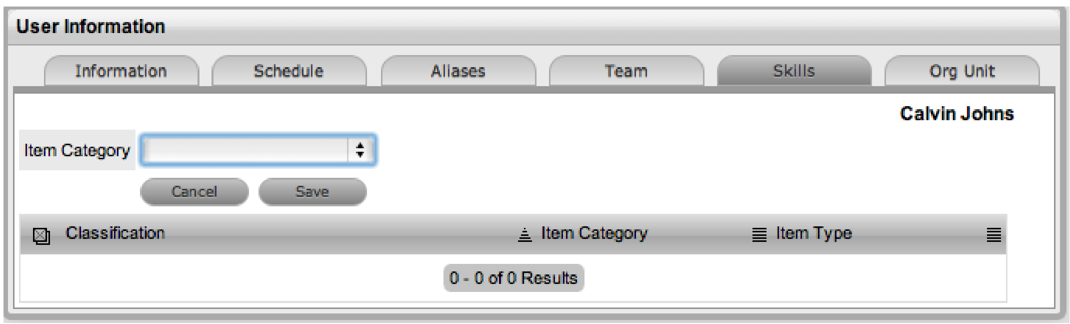
Use this tab to assign any specific classifications that a supervisor, technician, or partner should handle. The system assumes that anything you include in this tab is an area of expertise for the users, which allows the system to automatically route requests logged against these Classifications to the most appropriate user.

NOTE Prior to using the **Skills** tab, a supervisor should configure items and classifications.

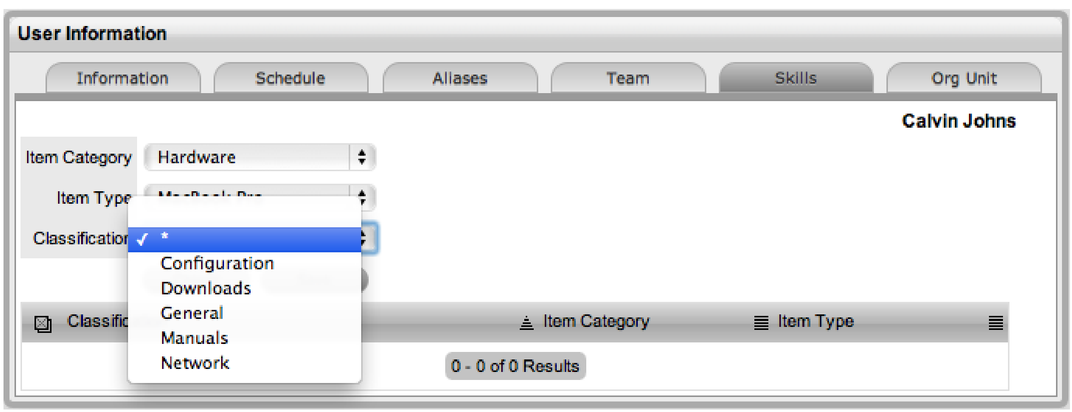
Assigning a Classification

➔ To assign a classification:

1. Go to **User > Users > Skills**.
2. Click **Edit**.
3. Click **Add**.
4. Select the **Item Category**.



5. Select an **Item Type**, if relevant.
6. Select a **Classification**. You can select * to assign all classifications as skills or you can choose a specific classification.
   - The list includes all classifications configured for the item category and the item type, if you selected an item type.



7. Click **Save**.
8. Click **Done**.

NOTE Classifications you assign to a user are based on either the classifications of an item category or an item type, hence why two columns are shown. However, the **Item Type** column only includes information when the classification you select is specific to that item type, and not directly related to the item category.

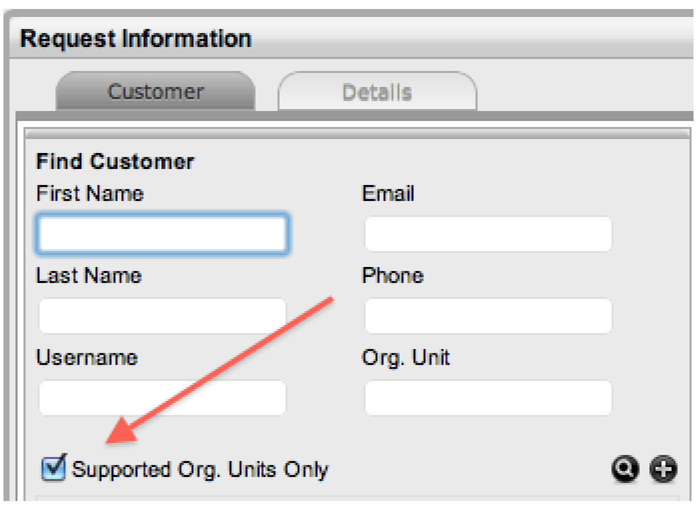
Removing a Classification

→ To remove a classification:

1. Go to **User > Users**.
2. Select the name of the user.
3. In the **Skills** tab, click **Edit**.
4. Select the checkbox next to the classification(s) you want to remove.
5. Click **Remove**.
6. Click **Done**.

Org Unit Tab

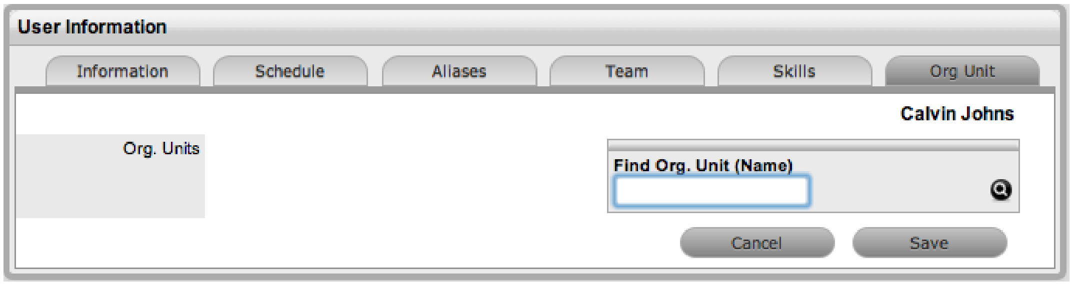
Use this tab to assign one or more organizational units to a supervisor, technician, or partner. The system directs requests logged by these organizational units to the assigned users. If you assign users to support organizational units, the **Find Customer** option during the request creation process shows the **Supported Org. Units Only** option. This option limits the customer search results to those customers who belong to the organizational units that the logged in user is assigned to support.



Assigning an Organizational Unit

→ To assign an organizational unit to a user:

1. Go to **User > Users > Org Units**.
2. Click **Edit**.
3. In the **Find Org. Unit (Name)** field, enter any known organizational unit details or leave the field blank to return the full list of units recorded in the system.



4. Click .
5. Select the organizational unit name to associate it with the user.
   - You can select multiple units, if required.
6. Click **Save**.

Removing an Organization Unit

→ To remove the association between a user and an organizational unit:

1. Go to **User > Users**.
2. Select the name of the user.
3. In the **Org Units** tab, click **Edit**.
4. Select next to the organizational unit(s) you want to remove.
5. Click **Save**.
6. Click **Done**.

Re-enabling Deleted Accounts

As an administrator, you have the ability to reactivate deleted user accounts.

→ To enable a deleted account:

1. Within the **User > Users** tab, click the **Search** button.
2. Select **Deleted** as the **Account Status** search option.
3. Click **Search**.
   - A list of deleted users is shown.
4. Select the name of the user whose account you want to re-enable.
   - The **User Information** page opens.
5. Click the **Enable** button.
   - The user account becomes active and is available within the application.

Importing Users Using LDAP/Active Directory Server

You can connect the system to a directory server for user authentication purposes. This process removes the need to create user accounts, allowing you to work with infrastructure already in place to synchronize user accounts and access levels with an existing directory server.

As part of the mapping process, if a value does not exist on the directory server for a mapped field, a drop-down menu will not be available in LiveTime for that field, nor will users be able to edit it.

If you use a directory server, a user’s password is not visible within LiveTime, regardless of whether the user is new or existing in the system. This is because the system validates the user’s account against a directory server account rather than a system account. The user's password resides in the directory server’s database and is therefore not accessible through LiveTime.

Also, users using LDAP or Active Directory authentication are not able to edit their first name, last name, LDAP/ADS username, or email address. These fields are stored on the directory server and cannot be modified within LiveTime.

To import users using a directory server, see Authentication.

Assignments Tab

The **Assignments** tab allows you to create job function templates for new and existing users. These templates provide a way in the system to easily assign users to multiple teams, escalation layers, organizational units, and for new users, processes all at once. Administrators and supervisors can apply these templates within the **User Information** screen for new users, and within the **Team** tab of the **User Information** screen for existing users who are assigned the relevant processes.

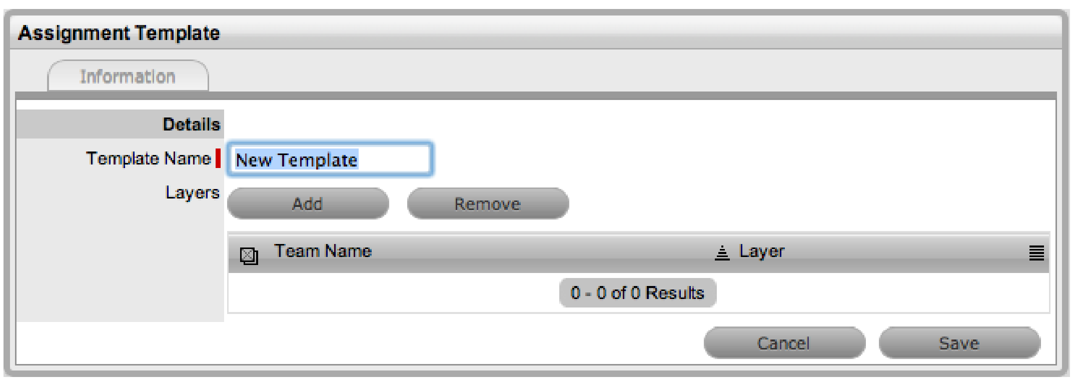
For example, you might create a "Frontline Support" template to assign a user to layer 1 of your incident team and to a work group of a service request team. You may also want to assign the user to an update customer group within a change management team. You could then easily apply the template within the **User Information** screen to all users created directly in the system. Or, if a user was created using a directory server, you could apply the template within the **Team** tab of the **User Information** screen.

Creating an Assignment Template

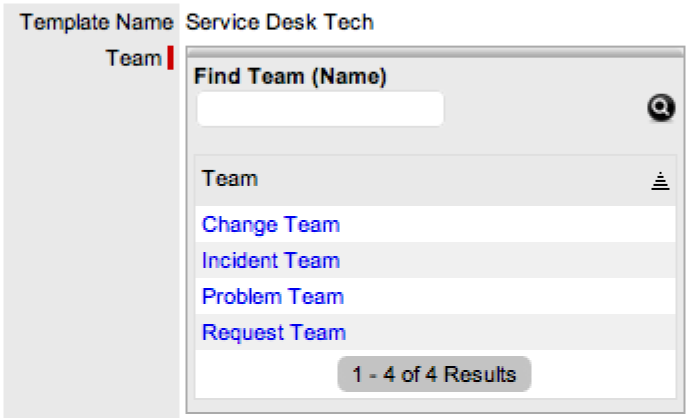
Before creating an assignment template, be sure all the relevant teams, escalation layers, groups, and organizational units exist in the system. If you create additional teams, escalation layers, groups, or organizational units at a later date, you can easily update the assignment template.

➔ To create an assignment template:

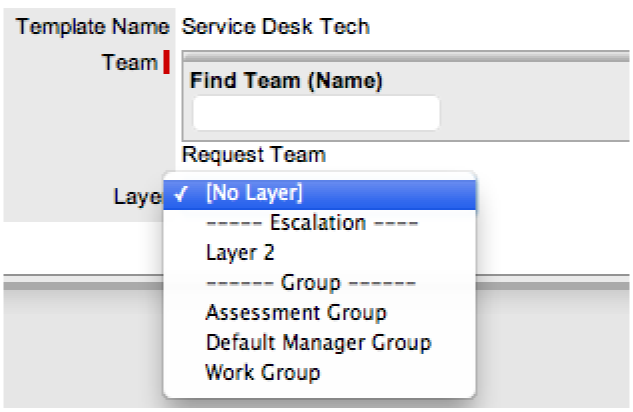
1. Go to **User > Assignments**.
2. Click **New**.



3. Enter the **Template Name**.
4. Click **Add**.
5. In the **Find Team (Name)** field, enter a name to find a specific team, or leave the field blank to return a list of all teams, then click .



6. Select the name of the team you want to add to the template.
7. Select an option from the **Layer** list.

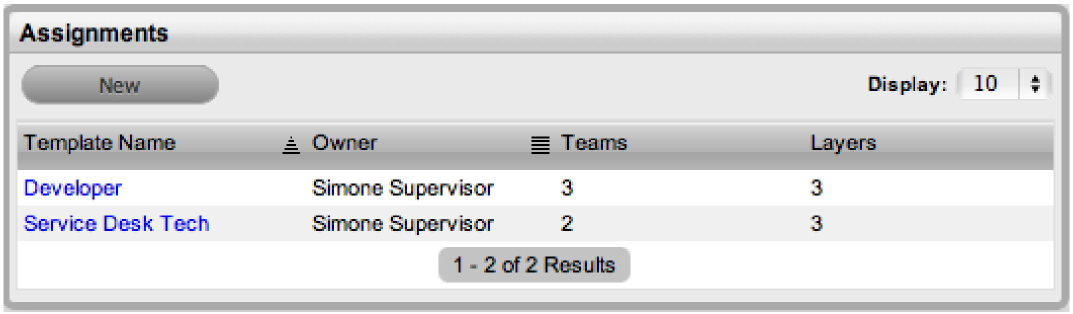


8. Click **Save**.
9. In the **Find Org. Unit (Name)** field, enter a name to find a specific organizational unit, or leave the field blank to return a list of all organizational units, then click .
10. Click **Save**.
11. Repeat steps 4 to 10, until you have created all relevant assignments for the template.
    - The template is now available within the **User Information** screen for new user creation, or within the **Teams** tab for existing users.

Editing an Assignment Template

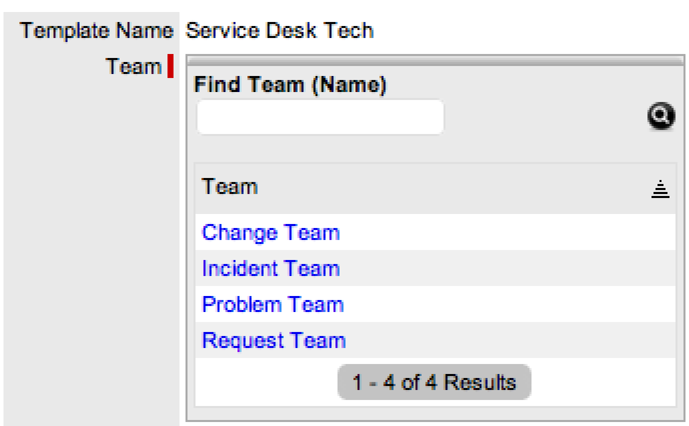
→ To make changes to an existing user assignment template, such as adding or removing teams, related layers, or group assignment:

1. Go to **User > Assignments**.

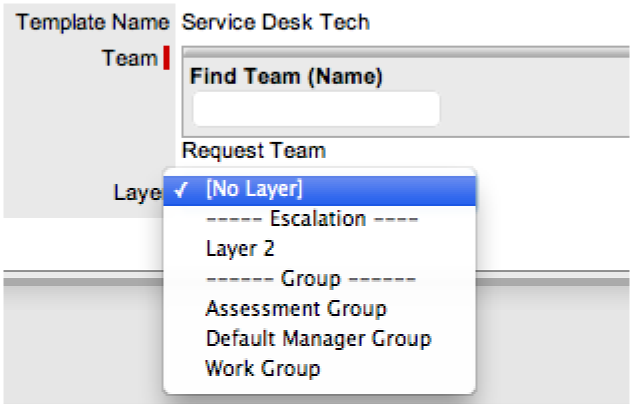


2. Select the name of the template you want to edit.
3. Click **Edit**.
4. To remove a team/layer association, select the checkbox next to the team name and click **Remove**.

5. To add a team/layer association, click **Add**.
6. Enter a name to find a specific team, or leave the field blank to return a list of all teams, then click .



7. Select the name of the team you want to add to the template.
8. Select an option from the **Layer** list.

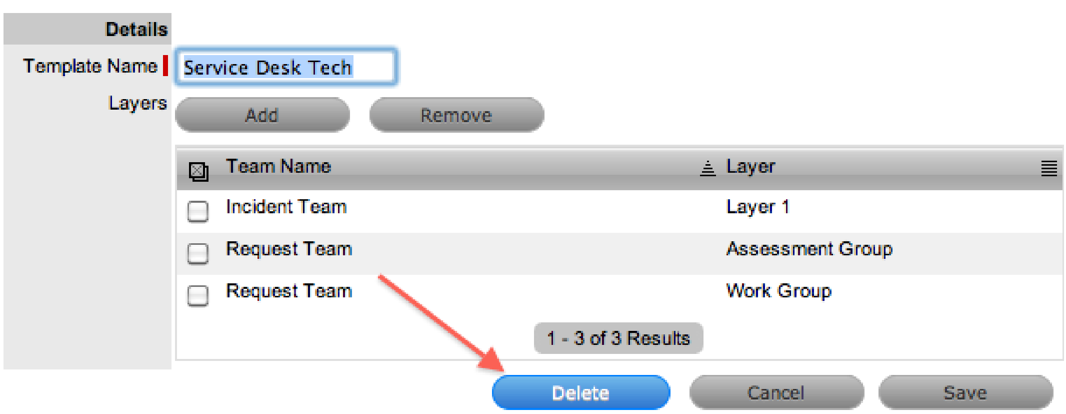


9. Click **Save**.
10. To remove an organizational unit from the template, click next to it. To add an organizational unit, use the **Find Org. Unit (Name)** field.
11. To save all changes, click **Save**.

Deleting an Assignment Template

→ To delete an assignment template from the system:

1. Go to **User > Assignments**.
2. Click on the name of the template you want to delete.
3. Click **Edit**.
4. Click **Delete**.



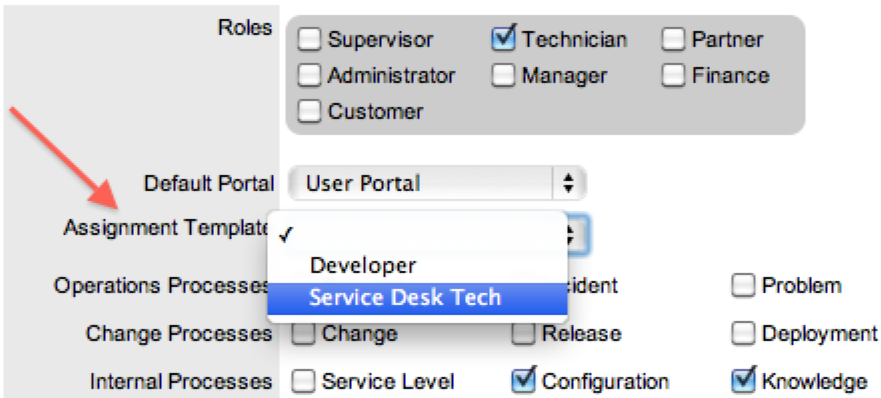
5. In the warning message, click **OK**.

Applying Assignment Templates to New Users

For new users created directly in the system, you can apply an assignment template within the **User Information** screen. When you apply a template, the system automatically associates the newly created user with all relevant processes, teams, escalation layers, and groups. To remove a team assignment after a template has been applied during new user creation, deselect the process and the team name will be removed from the assigned list.

→ To use an assignment template for a new user:

1. Go to **User > Users**.
2. Click **New**.
3. Enter the user's details.
4. From the **Assignment Template** list, select the template you want to apply to the user.
   - All relevant processes are automatically selected for the user.



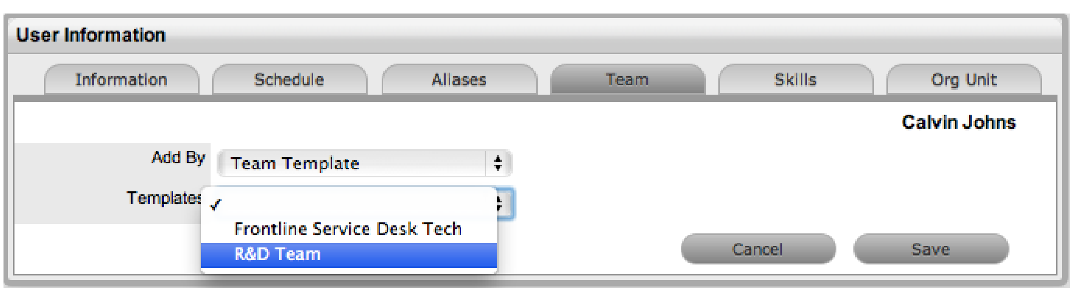
5. Clear any processes that do not apply to the user.
   - The team association is automatically removed from the **Team Name** list.
6. Complete the remaining user details, including assigning a supervisor and email address.
7. Click **Save**.

Applying Assignment Templates to Existing Users

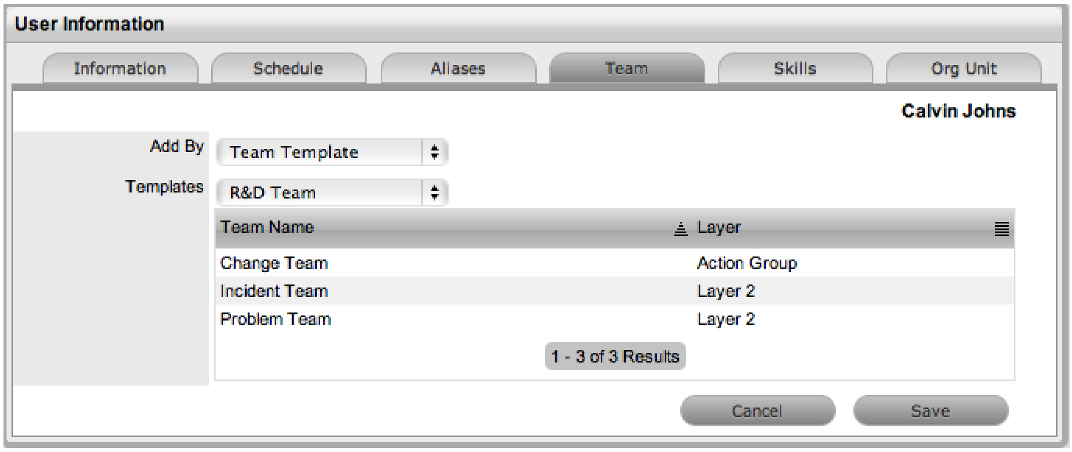
For users who have active accounts in the system and are assigned the relevant processes, assignment templates are available within the **Team** tab of the **User Information** screen.

→ To apply a template to an existing user:

1. Go to **User > Users**.
2. Select the name of a user.
3. Click **Edit**.
4. Verify the user has all the relevant processes with the **User Information** screen.
5. Click the **Team** tab.
6. From the Add By list, select the **Team Template** option.



7. Select the relevant template from the **Templates** list
8. Click **Save**.



About User Roles

There are eight access levels that determine the functionality and privileges available within LiveTime. These access levels include the Administrator and Customer roles, plus six user roles:

- Supervisor
- Technician
- Partner
- Manager
- Finance
- Team Leader

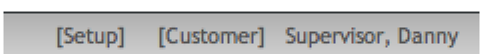
A user can have more than one role but only one of the following licensed roles:

- Supervisor
- Partner
- Technician
- Team Leader

If an individual has multiple roles within the system, you can assign a default role to allow for quicker access to the most commonly used functionality.

Default Portal

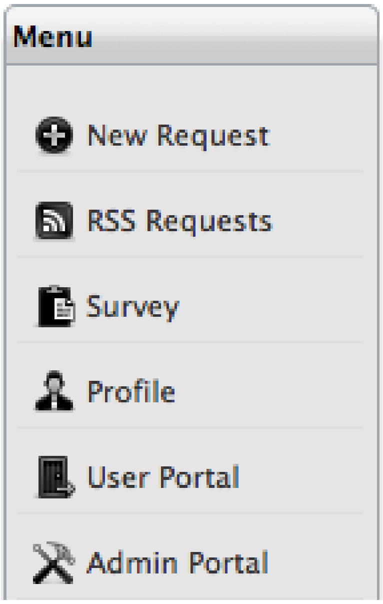
For individuals who have more than one role in the system, you can define a default portal for them. When they log in to the system, their default portal is shown and they can move to other portals using the links provided next to their login name at the top right of the screen. For example, if a user is also an administrator and customer, next to his or her login name, the **[Setup]** and **[Customer]** links are available for quick access to these portals.



Default portal options include the following:

- **[Customer]**
- **[Setup]**, for administrators
- **[User]**, for those assigned a Supervisor, Technician, Partner, Finance, Team Leader, and Manager role

Users or administrators who are also customers can access the Customer Portal through the **[Customer]** link located at the top right of their screen. While logged in as a customer, you can access the **User Portal** and **Admin Portal** links within the Customer Portal sidebar menu.



→ To move to another portal:

1. Log in using the credentials for your default user role.
2. Click the **[Setup]**, **[User]**, or **[Customer]** link, as required.
   - The system switches to the selected portal.

User Processes

LiveTime includes the following processes to help manage the different types of requests an organization can encounter:

- Request fulfillment
- Incident management
- Problem management
- Change management
- Release and deployment management
- Service level management
- Configuration management (which incorporates service catalog management and service portfolio management)
- Knowledge management

NOTE Request fulfillment, problem management, change management, and release and deployment management apply based on your LiveTime installation license.

When you create user accounts, you also allocate processes to the user, which gives the user access to requests and information specific to each assigned process.

Providing a user access to incident management, problem management, change management, and request fulfillment means the user can be assigned as a member of support teams within those processes.

Users who have service level management enabled have access to the **Service** tab they log in to the application. This tab allows users to create and edit SLAs, OLAs, and underpinning contracts.

Users who have configuration management and knowledge management enabled have options to define control at a more granular level in the **User Information** screen, and these users can be assigned permission to create, edit, delete, and publish elements within these processes.

The following user roles have limitations on the processes they can be assigned:

- The Finance role can only be assigned configuration management and service level management
- The Manager role can be assigned all processes, but with 'Read Only' access.

User Roles & Privileges

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
Setup								
Email setup and email customization	✓							
Create custom fields	✓							
Set user, customer & system privileges	✓							
UI customization	✓							
Dynamic database switching	✓							
Schedule LDAP / ADS integration	✓							
Item import via AMIE or CSV file	✓							
Customer import	✓							
Scheduled reports	✓							
Incident Analyzer for problem management	✓							
Enable billing module	✓							
Customize workflows		✓						
Customize system messages and keywords	✓							
Chat		✓	✓	✓	✓			✓
Context sensitive help	✓	✓	✓	✓	✓	✓	✓	✓
Create users	✓	✓						

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
Assign user roles & processes	✓	✓						
Create teams, escalation layers & work groups		✓						
Create customers	✓	✓	✓1	✓1	✓1	✓1	✓1	
Enable customer access	✓	✓	✓	✓	✓	✓	✓	
View/edit customer	✓	✓	✓	✓	✓	✓	✓	
Search customers	✓	✓	✓	✓	✓	✓	✓	
Re-enable deleted users & customers	✓							
Create organizational units		✓				✓	✓	
Assign contracts to organizational units	✓	✓	✓	✓	✓	✓	✓	
Incident Management								
Create / edit incidents		✓	✓	✓	✓			
Delete incidents		✓						
View / edit other technicians' incidents		✓	✓2	✓1, 2				
Re-assign incidents		✓	✓2	✓1	✓1			
Escalate incidents		✓	✓2	✓1	✓1			
View all incidents		✓	✓2	✓1, 2				
Handshaking		✓	✓	✓	✓			
Incident		✓	✓	✓	✓		✓	

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
groups								
Impact analysis		✓	✓	✓	✓		✓	
View proposed solutions		✓	✓	✓	✓			
Incident analysis		✓	✓	✓	✓			
Subscribe to RSS feeds		✓	✓	✓	✓			
Request Fulfillment								
Create / edit service requests		✓	✓	✓	✓			
Delete service requests		✓						
View/edit other technicians' service requests		✓	✓2	✓1, 2	✓1			
View all & re-assign service request		✓	✓2	✓1, 2	✓1			
Approve service request							✓	✓
Escalate service request status		✓	✓	✓	✓		✓	
Handshaking		✓	✓	✓	✓			
View proposed solutions		✓	✓	✓	✓			
Service request groups		✓	✓	✓	✓		✓	
Impact analysis		✓	✓	✓	✓		✓	
Update workflow status		✓	✓	✓	✓			
Problem Management								

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
Create / edit problems		✓	✓	✓	✓			
Delete problems		✓						
View / edit other technicians' problems		✓	✓2	✓1, 2				
Re-assign problems		✓	✓2	✓1	✓1			
Escalate problems		✓	✓2	✓1	✓1			
View all problems		✓	✓2	✓1, 2				
Create known errors		✓	✓	✓	✓		✓	
Impact analysis		✓	✓	✓	✓		✓	
View proposed solutions & workarounds		✓	✓	✓	✓			
Problem analysis		✓	✓	✓	✓			
Create workarounds		✓	✓	✓	✓			
Change Management								
Create / edit change requests		✓	✓	✓	✓			
Delete change requests		✓						
View / edit other technicians' change requests		✓	✓2	✓1, 2	✓1			
View all & re-assign change request		✓	✓2	✓1, 2	✓1			
Escalate		✓	✓	✓	✓		✓	

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
change request / modify change request status								
Approve change request							✓	✓
Change groups		✓	✓	✓	✓		✓	
Impact analysis		✓	✓	✓	✓		✓	
Create back out procedure		✓	✓	✓	✓			
Update workflow status		✓	✓	✓	✓			
Release & Deployment Management								
Create / delete tasks		✓						
Edit tasks		✓	✓	✓	✓			
View / edit other technicians' tasks		✓	✓2	✓1, 2	✓1			
View all & re-assign tasks		✓	✓2	✓1, 2	✓1			
Define a release		✓					✓	
Define a deployment package		✓					✓	
Control release lifecycle		✓					✓	
Create and modify workflow		✓						
Service Asset & Configuration Management, Service Portfolio Management, Service Catalog Management								
Create / edit / delete items		✓	✓1	✓1	✓1	✓1	✓1	✓1
View / edit		✓	✓	✓	✓	✓	✓	

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
items								
Search items		✓	✓	✓	✓	✓	✓	✓
Re-enable deleted items		✓						
Create item categories & category classifications		✓						
Create item types & type classifications		✓	✓					
Create outages		✓	✓	✓		✓	✓	
View outages		✓	✓	✓	✓	✓	✓	✓
Assign contracts		✓	✓	✓	✓	✓	✓	
Service Level Management								
Define SLAs		✓	✓			✓	✓	
Define underpinning contracts		✓	✓			✓	✓	
Define OLAs		✓	✓			✓	✓	
Create vendors		✓	✓	✓		✓	✓	
Create SLA breach codes		✓	✓					
View SLA breaches		✓	✓	✓		✓	✓	
Financial Management								
Create purchase orders						✓		
Process purchase orders						✓		
Create and assign contracts						✓		
Process contracts						✓		
Create and process						✓		

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
invoices								
Create, manage & view item costs						✓		
Forecast service item costs						✓		
Knowledge Management								
Create articles / FAQs		✓1	✓1	✓1	✓1		✓1	
Publish articles		✓1	✓1	✓1	✓1		✓1	
Create article groups		✓	✓	✓	✓			
Search articles		✓	✓	✓	✓		✓	✓
Administer forums		✓1	✓1	✓1	✓1			
Create / modify / reply to topic threads		✓1	✓1	✓1	✓1			✓1
Create surveys		✓1	✓1	✓1	✓1		✓1	
Complete surveys		✓	✓	✓	✓	✓	✓	✓
Reports								
KPI reports		✓	✓	✓			✓	
Service request reports		✓	✓	✓			✓	
Incident reports		✓	✓	✓			✓	
Problem reports		✓	✓	✓			✓	
Change request reports		✓	✓	✓			✓	
Configuration reports		✓	✓			✓	✓	
Service		✓	✓			✓	✓	

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
agreement reports								
Contract reports		✓				✓	✓	
Organization reports		✓	✓			✓	✓	
Technician reports		✓	✓				✓	
Knowledge reports		✓	✓	✓			✓	
Finance reports		✓				✓	✓	
Login reports	✓	✓					✓	
System reports	✓	✓						
Build reports		✓				✓	✓	
Custom reports		✓					✓	
Home								
Create alerts	✓	✓	✓1	✓1				
View alerts	✓	✓	✓	✓	✓	✓	✓	✓
Enable quick calls	✓							
Create quick call templates		✓						
Set user preferences	✓	✓	✓	✓	✓	✓	✓	✓
Disable receiving personal email	✓	✓	✓	✓	✓	✓	✓	
Dashboard across processes		✓	✓	✓	✓		✓	
Customer Portal								
Create / view / edit requests								✓
Edit & close existing requests								✓1
View								✓

	Administrator	Supervisor	Team Leader	Technician	Partner	Finance	Manager	Customer
proposed solutions								
Search knowledge base								✓
View FAQs								✓
View service catalog								✓1
Create items								✓1
View outages								✓
Chat with technician regarding request								✓1
Search forums								✓1
Complete surveys								✓
Subscribe to RSS feeds								✓

1 *Privilege must be enabled in the system setup.*
2 *Privilege applies only within the context of the user's team.*

Administrator Role

The Administrator role performs system configuration and setup tasks, including the following:

- Customizing the application and automated messages
- Configuring the interaction between external systems, including the directory servers and asset management tools
- Enabling customer, user, request, and system privileges
- For systems with problem management configured, setting parameters for automatic problem identification and creation

While multiple administrators can exist in the system, it is recommended that organizations create only one, or at maximum, two administrators. Only an existing administrator can create other administrator accounts.

NOTE If a user has multiple roles that include Supervisor, Technician, Finance, or Manager, the privileges of these roles are consolidated within a single User Portal (see Changing Roles for more information).

Supervisor Role

The Supervisor role provides maximum access to the system for day-to-day management of the service desk and for configuration control.

NOTE If a user has multiple roles that include Supervisor, Technician, Finance, or Manager, the privileges of these roles are consolidated within a single User Portal (see Changing Roles for more information).

Supervisors can do the following:

- Create user and customer accounts
- Assign roles and processes
- Build workflows (when assigned the service level management process)
- Configure the Configuration Management Database (CMDB)
- Allocate technicians to teams and escalation layers

The Configuration Management Database (CMDB) is the central data repository for LiveTime. The CMDB allows for the centralized management of IT infrastructure through configuration items ("items"). Within LiveTime, everything is tied to items in the CMDB. Supervisors control the configuration of the CMDB, which includes:

- Item categories
- Lifecycle templates
- Item types
- Classifications
- Configuration items

NOTE The ability to create items can also be assigned to other roles, if an administrator has enabled this option.

Team Leader Role

The Team Leader role oversees the day-to-day operations of a specific team of technicians. Duties of this role include ensuring a team is meeting its service commitments, monitoring the performance of team members, and handling request escalations.

Team leaders have all the privileges of a technician, plus the following:

- Create item categories and category classifications
- Access a broader range of reports
- View teams
- Edit the teams they are assigned to

NOTE If a user has multiple roles that include Supervisor, Team Leader, Technician, Finance, or Manager, the privileges of these roles are consolidated within a single User Portal (see Changing Roles for more information).

Technician Role

The Technician role is intended for service desk staff who work on requests.

Technicians are allocated support processes and can then be assigned to teams and escalation layers. Technicians can belong to any number of teams within the processes they are allocated.

NOTE If a user has multiple roles that include Supervisor, Technician, Finance, or Manager, the privileges of these roles are consolidated within a single User Portal (see Changing Roles for more information).

When enabled by an administrator, technicians can do the following:

- Create new customers
- Create new items
- Reassign requests
- Edit other technicians' requests
- Create alerts
- Create, edit, publish, and delete knowledge base articles by default

NOTE Every technician must be assigned to a supervisor.

Partner Role

The Partner role is assigned to a partner organization and has the same privileges as the Technician role, but partners can only view and support customers associated with their assigned partner organization.

Partners can do the following:

- Manage their customers
- Manage their customers' requests
- Create and maintain their customers' items
- View reports

Every partner must be associated with a partner organization, which is done manually within the **User Information** screen or within the **Partner Organization > Technician** tab. Partner organizations help manage requests between customers or organizational units and external service providers within LiveTime. Multiple partners can be available within a team and assigned at relevant levels of escalations for working on requests.

If you create a partner and do not associate the account with a partner organization, the partner cannot be assigned to a team and therefore cannot be assigned to work on requests.

When a request is created for a partner organization's customer, the system automatically allocates it to the partner associated with that organization.

Manager Role

The Manager role oversees the activities of the Service Desk or specific processes. Managers have access to most parts of the system, primarily on a **read-only** basis.

You can also give manager access to users who do not actively participate in the day-to-day happenings of service and support teams, but may require detailed information about the actions and status of requests.

A manager can do the following:

- Create customers
- View requests within their allocated processes
- Access the full range of reports
- Create and modify items
- Approve service requests and change requests (based on LiveTime license type)

Users who must manage the Service Desk and be included in teams with edit access to requests should be allocated the Supervisor role.

NOTE If a user has multiple roles that include Supervisor, Technician, Finance, or Manager, the privileges of these roles are consolidated within a single User Portal (see Changing Roles for more information).

Finance Role

The Finance role drives service costing models and, if relevant, maintains the billing module using system contracts and purchase orders. Users with the Finance role have the processes of service level management and configuration management enabled by default.

NOTE If a user has multiple roles that include Supervisor, Technician, Finance, or Manager, the privileges of these roles are consolidated within a single User Portal (see Changing Roles for more information).

The Finance role can do the following:

- Create customers and items
- Project end-to-end service costs
- Complete access to SLAs and OLAs
- Access reports
- Bill for services
- Process payment for invoices
- Cancel maintenance contracts
- Manage IT and service assets

NOTE The Finance role is the only role with the privilege to process the payment of invoices (relevant for systems that have the **Enable Invoices** option enabled in **Setup > Billing**).

Customer Role

The Customer role is for users who submit service requests, incidents, and possibly change requests to the service desk.

Customers can do the following, based on the system configuration:

- Create and manage requests through email
- Create, view, or edit their requests through the Customer Portal
- Self-diagnose issues using the knowledge base
- Access proposed solutions during the request creation process
- Participate in a live chat with technicians to discuss issues
- Subscribe to RSS feeds for the latest information on their requests
- Access the knowledge base, forums, and FAQs
- Access their items' outages information
- View all services offered by the service organization, if enabled for the system
- Approve service requests and change requests (based on LiveTime license type)

Reports

You can use the **Reports** tab to view:

- Login reports
- System reports
- Email log
- System log

These reports provide you with details of system activity in real time. The reports outline who has logged into the system and how the application is performing. You can use the login report to log out users who have closed a session without logging out.

Within the **Log** tab, you can view the system log files and export them when needed.

Login Reports

The information displayed on the **Reports > Login** tab includes the following:

- **Recent Logins**, with IP addresses, host details, and login dates for users who recently accessed the system
- **Alert Manager Statistics**, showing active alerts in the system. Users can create alerts manually and the system can create alerts automatically to notify users about service and support activities.
- A list of current sessions, with a **Logout** option next to each session.

  NOTE If you click **Logout**, you end the user's session. This action may be required if a user has disconnected from the system without logging out and needs access to log back in. This action is not required if the **Terminate Active Session** option is set to **Yes** in **Setup > Privileges > System**.

System Reports

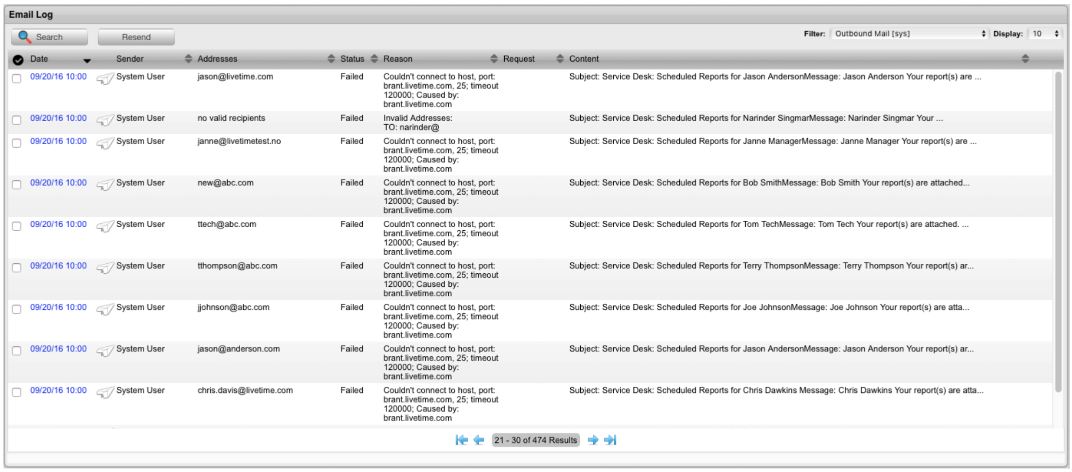
System reports include a real time summary of the system's status and environment.

Report information includes the following:

- **Statistics**, which includes a summary of key system metrics regarding the current session, the hosting environment, and memory usage
- **Database**, which provides overall application and database statistics
- **Scheduled Tasks**, which lists all background system jobs (including indexing, which allows supervisors to view that the system is indexing correctly without sticking)
- **Java VM Information**, which provides details about the Java Virtual Machine running on the server
- **Disk Space**, which lets you know how much disk space on the server is free

Email Log

The **Reports > Email** tab allows you to access a complete list of email activity that occurs within LiveTime. This list enables you to determine whether an email is successfully sent or if it has failed. If an email fails to send, the system provides an explanation for the failure. Failed messages can attempt to be resent by selecting the checkboxes and clicking the 'Resend' button.



The **Email Log** screen has the following filter views:

Filter	Description
All Mail	Displays all email activity.
Inbound Mail	Lists the emails that have been sent to the system.
Inbound Mail Errors	List the emails received by the system mailbox in error (for example, from email addresses with no account).
Outbound Mail	Lists the emails that users have sent from the application.
Outbound Sys Mail	Lists the emails that the system has automatically sent (for example, emails related to escalations or SLA breaches).

NOTE Automatic system maintenance deletes email log entries older than 14 days.

You can also create custom list filters to use within this screen.

Searching Email Activity

You can conduct searches on inbound and outbound emails recorded in the system email log.

➔ To search for an email:

1. Go to **Reports > Email**.
2. Click **Search**.
3. Define the following search options:

Option	Description
Start Date	Enter the earliest relevant date for the system to include in the search.

Option	Description
End Date	Enter the latest relevant date for the system to include in the search.
Direction	Define if the search is to include either inbound or outgoing email.
Status	Define the email status option to search for: • Sent email • Failed to send email • Email set a Pending status • Email sent with errors

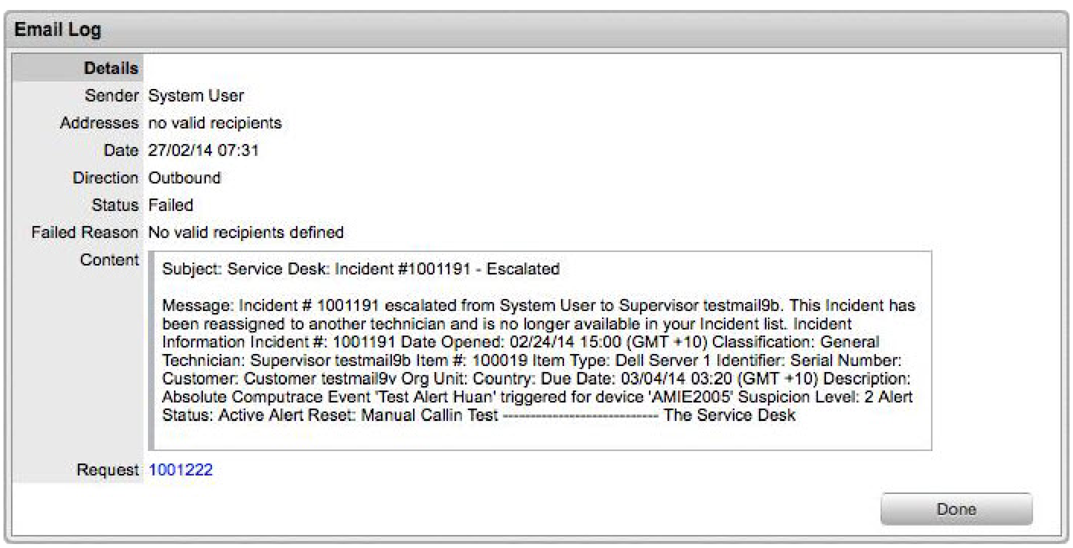
4. Click **Search**.

Generating Requests for Email Delivery Errors

If the email log contains failed entries due to email delivery errors (for example, an invalid or missing email address), and the **Create Request** option is enabled in the Administrator Portal at **Setup > Email > Errors**, you can quickly generate a request to prompt the Service Desk to take appropriate action (for example, update the customer's record with the correct address).

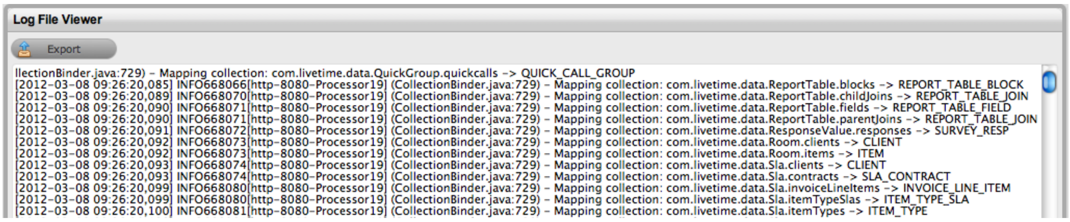
➔ To generate a request for an email delivery error:

1. Go to **Reports > Email**.
2. In the email log, select the **Date** of a failed entry.
3. Click **Create Request**.
   - The system generates a request to address the failed email delivery based on the settings specified by your administrator. The ID number of the newly-created request is shown in the **Request** field. If you have sufficient privileges to view the request, you can select the ID number to open it.



System Log File

To assist with the diagnosis of issues that may occur when using the system, you can access system log files within the **Log File Viewer**. The information shown here includes the last 250K of the 1MB log file.



Exporting the Log File

If you are experiencing issues with the application, you can easily export the log file information by clicking 

. You can then upload the log file export, which includes system and license information, to a pre-existing incident or email it to your local system support team.

My Account Tab

The **My Account** tab allows you to do the following:

- Edit personal information and notification preferences
- Reset your username and password
- Set password questions, if enabled in the system
- Select your default portal and **Home** tab landing page
- Set a time zone and date format

NOTE You cannot edit fields imported through an LDAP or Active Directory server.

Editing Account Information

➔ To edit your account information:

1. In the User Portal, go to **Home > My Account**. In the Administrator Portal, click the **My Account** tab.
2. In the Account Information screen, click **Edit**.
3. Make the required changes.

Field	Description
Details	
First Name	Your first name. If account information is imported from LDAP or Active Directory, this field is not editable.
Last Name	Your last name. If account information is imported from LDAP or Active Directory, this field is not editable.
Username	Your username in the system.
Password	To change your password, enter a new value in this field.
Confirm Password	Re-enter the password to confirm correct entry.
Password Question One/Two	Select the challenge questions the system should ask you before sending a new system password to you if you select the **Lost Password** link on the login page. (These fields are visible when the **Password Questions** option is enabled at **Setup > Privileges > System**.)
Answer One/Two	Enter the answers to the questions you selected.
Email	Your email address.
Notifications	You can choose to receive system-generated emails when requests are created or updated. Regardless of the setting in this field, you will receive an email notification if a request is escalated to you.
Notify on Vacation	You can choose whether you want to receive system-generated emails regarding requests while you are away on scheduled vacation.
Survey Opt Out	Set to **Yes** if you want to be excluded from all future customer surveys.
Notify Via	Select **Email**, **SMS**, or **Phone** as your preferred method of receiving updates from the system.

Field	Description
	This field is visible if you are also a customer in the system and the **Customer Defined Contact** option is enabled in **Setup > Privileges > Customer**. It only applies if the team has the **Customer Notification** option set to **Customer Defined**.
Phone Mobile Pager	Your telephone, mobile, and pager details. If these fields are imported from LDAP or Active Directory, they are not editable.
Date Format	Your preferred date format.
Country	When you enter your country details, if the country has states, a **States** list will also become available. (State options can be configured in the Administrator Portal at **Setup > Localization > Regions**.)
Time Zone	Your time zone.
Available for Chat	You can set your availability for a chat request, if the chat feature is enabled.
Supported Org. Units Default	When creating requests an searching for items, is the 'Support Org. Units Only' option selected
Landing	
Portal	If you have more than one role, you can set which portal to show by default at login.
Home Tab	You can select either the **My Tasks** tab or **Dashboard** tab as the default landing page when you log in to the system.
Item List	You can select your preferred default view when you visit the **Configuration > Items** tab.
Customer List	You can select your preferred default view when you visit the **User > Customers** tab.
Computrace	
Username	If your system is integrated with Absolute Computrace, enter your Customer Center username. Entering your Customer Center login credentials here allows you to administer Absolute Computrace assets directly from within the Service Desk. NOTE To administer a Computrace asset from the Service Desk, you must first have the required privileges in Absolute Computrace. For example, if you have sufficient privileges to perform a Data Delete on a device within Absolute Computrace, you will be able to perform the same action on that device from the Service Desk.
Password	If your system is integrated with Absolute Computrace, enter your Customer Center password.
LANrev (if per-user logins are required)	
Username	If your system is integrated with LANrev and your administrator enforces per-user logins, enter your LANrev username. Entering your login credentials here allows you to administer LANrev assets directly from within the Service Desk. NOTE To administer an asset from the Service Desk, you must have the required privileges in LANrev. For example, if you have sufficient privileges to perform a Device Lock on a device within LANrev, you will be able to perform the same action

Field	Description
	on that device from the Service Desk.
Password	If your system is integrated with LANrev, enter your LANrev password.

4. Click **Save**.

Teams Tab

Contains a list of all teams within the system that the user is assigned to, and the applicable ITIL process(es) of those teams

Templates Tab

Home for personal definitions of note templates, allowing technicians to have their own unique style when communicating with customers using templates

Receiving Email Notifications

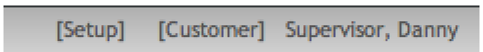
If you do not want to receive email notifications when you are assigned a new request or when changes are made to a request you are assigned to (for example, a customer logging a new request note), set the **Notifications** option to **No**.

Regardless of what you select for the **Notifications** option, if a request is escalated to you, the system will send you a notification email.

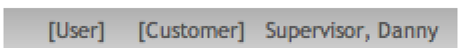
Changing Roles

If you have more than one role in the system, you are shown your default portal after logging in to LiveTime. However, you can easily switch between portals using the links next to your login name at the top right of the screen.

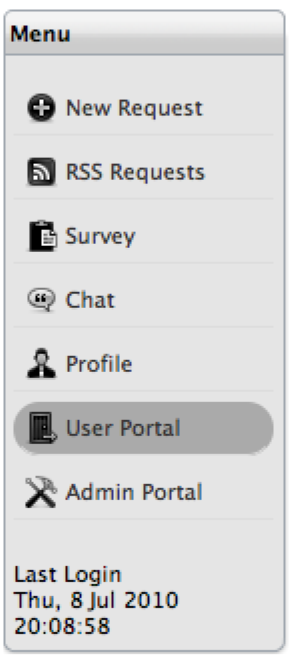
The roles of Supervisor, Team Leader, Technician, Finance, Partner, and Manager are consolidated within one User Portal. Therefore, if you have finance, manager, supervisor, and technician access, you can view all functionality related to these roles within the User Portal. If you are also an administrator and customer, next to your login name, you will see the **[Setup]** and **[Customer]** links that will bring you to the Administrator Portal and Customer Portal.



If you are an administrator, you access the administration and setup functionality within the Administrator Portal. If you are also a user and customer, next to your login name, you will see the **[User]** and **[Customer]** links.



Users or administrators who are also customers can access the Customer Portal through the **[Customer]** link at the top right of the screen. While logged in as a customer, the links to return to the User Portal and Administrator Portal are available within the Customer Portal sidebar menu.



Alerts

You can use alerts to notify users about important issues relevant to them or their environment. In addition, the system generates alerts for administrators in the following circumstances:

- An ADS/LDAP synchronization has been performed
- An AMIE item import has been completed
- There have been SLA warnings and breaches
- There have been email failures

Alerts that you generate within the **My Account** tab can act as reminders or notifications for your personal use, for a specific user, or for users of a particular role. You can schedule alerts to be published and dismissed at specific times.

Viewing Alerts

When a user receives an alert, a notification icon appears in the **Alerts** area at the bottom right of the screen:

→ To view a received alert:

1. Click the alert icon.
    - The **Alerts** window opens listing all current alerts. The icon to the left indicates whether the alert is classified as information, a warning, or urgent.
2. Click to close and retain the alerts.
    - Or, click to remove an alert from the window and disable the notification icon.

Creating Alerts

→ To create an alert:

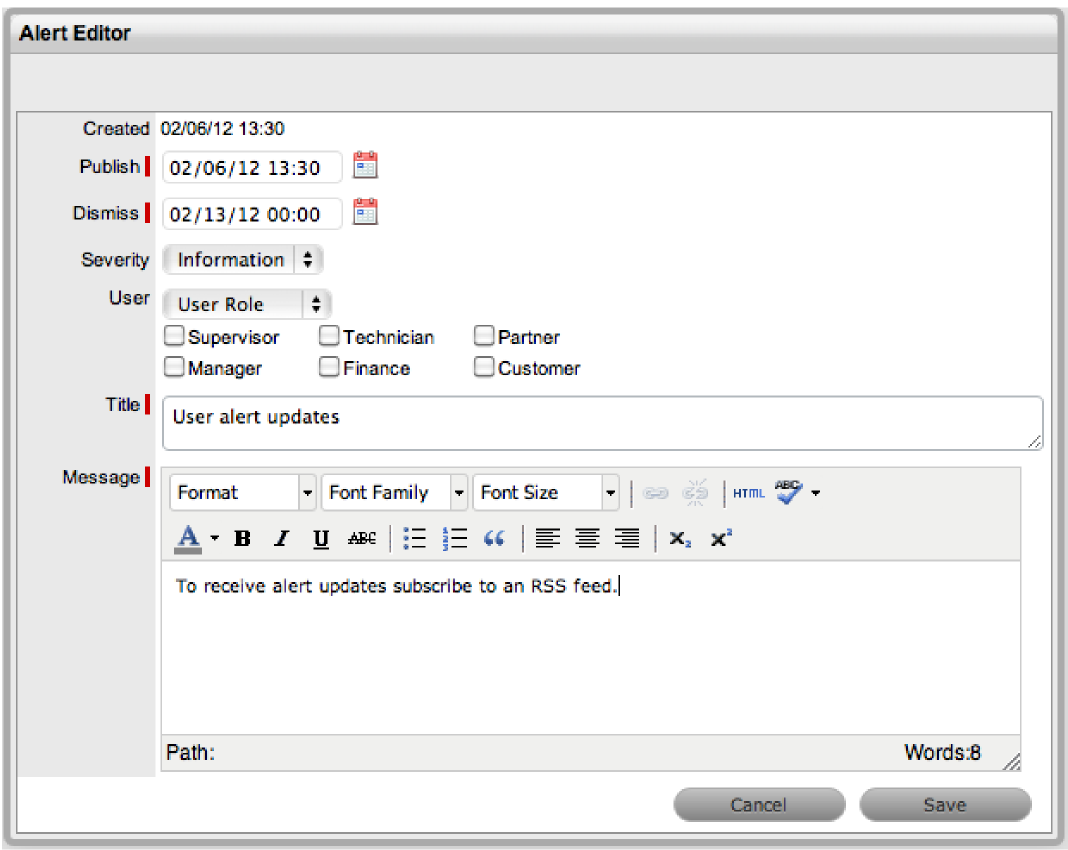
1. Go to **My Account > Alerts**.
2. Click **New**.
    - The Alerts editor appears.
3. In the **Alert Editor**, enter details for the alert.

Alert Details	Description
Created	The current date and time.
Publish	The date to publish the alert. Use the calendar icon to the right of the field to select a date. Set to a date in the future, or use the default to publish the alert immediately.
Dismiss	The date the alert ceases to be available. Use the calendar icon to the right of the field to select a date. On this date, the alert is removed from a user's **Alerts** list.
Severity	The type of alert to published. You have the following choices: • Information – for general alerts • Warning – to warn users of potential issues

Alert Details	Description
	• Urgent – to publish an urgent actionable message The icon appearing with the message depends on the type of alert.
User	The type of users to receive the alert, which can include the following: • A specific customer or user – you can use the **Find User or Customer** field to search for the user or customer you want to send the alert to • A user role – the alert goes to all users with that role • A personal alert – only you can see the alert • An organizational units – the alert goes to all users in that organizational unit • Public – visible to anyone who selects the **Public Alert** link on the login page
Title	Enter the title of the alert.
Message	Enter the main content of the alert.

4. Click **Save**.

   - If you do not set the Publish date of your alert in the future, it publishes immediately.



5. Click **Done**.

Deleting Alerts

You can delete alerts within the **Alerts** list by selecting the checkboxes of one or more alerts and clicking **Delete**. Alternatively, you can delete an alert individually within the **Alert Editor** by clicking **Edit**, then **Delete**.

SLA Breach Alerts

The system also uses alerts to inform users about SLA breaches. The alert is addressed to the user and assigned to the request that has failed to reach an SLA target. The breach contains information such as the affected Request ID and the reason for the SLA breach.

Setup Tab

The **Setup** tab allows you to configure LiveTime and control the behavior of the system.

Some of the tasks you can carry out from this tab include the following:

- Configure email, including the customization of all system email templates
- Customize fields and portal messages
- Integrate the system with external applications, define Open ID options, and enable outbound web services functionality
- Define user, customer, request, and system privileges
- Localize the application, including language of content automatically generated by the system, public holidays, and time zones for the scheduling functionality
- Enable the billing module for using contracts, purchase orders, and SLA costs
- Import items via a CSV file and AMIE

The areas available within **Setup** tab include the following:

- Email
- Custom Fields
- Privileges
- Customize
- Localization
- Licenses
- Database
- LDAP
- Security
- Reports
- Billing
- AMIE

Email

Use the **Email** tab to configure the system's incoming and outgoing email settings.

The system uses email to notify customers about the following:

- Login information
- Request creation, updates, and closure
- Contract renewals
- Invoice management
- Purchase order creation

The system uses emails to notify users about the following:

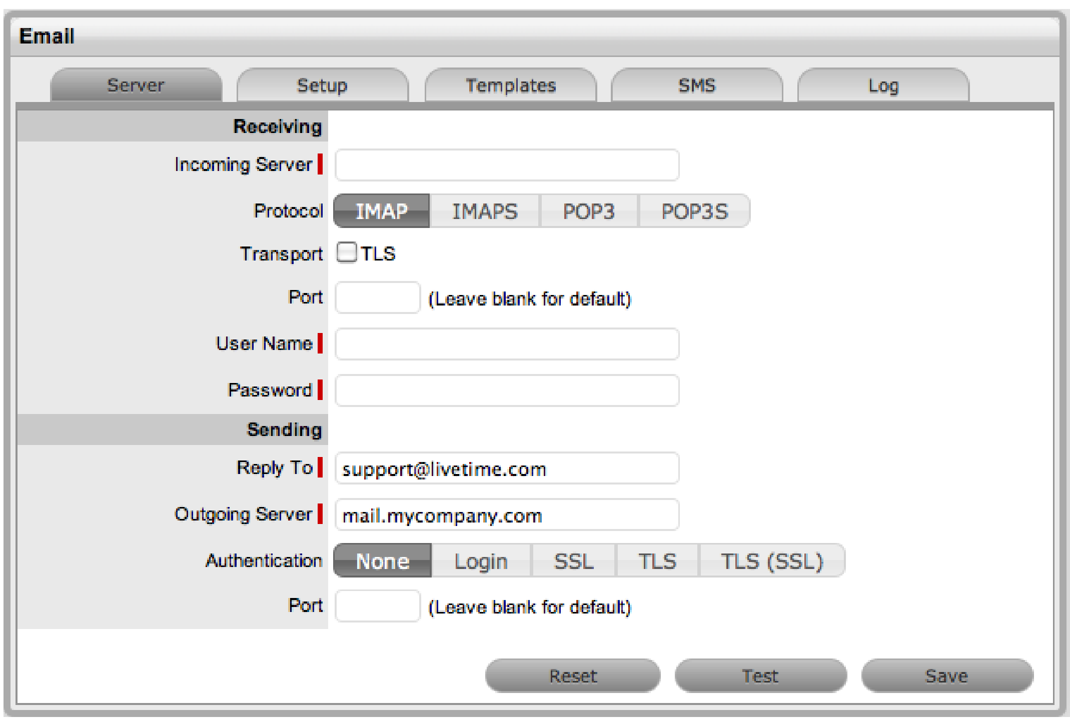
- Request allocation
- Escalations and SLA reminders, warnings, and breaches
- Amendments to requests made by other users
- Addition or removal of requests from groups
- Required request approvals

For detailed information about managing requests using email polling, see Email Polling and Request Creation.

Server Tab

→ To enter email server details:

1. Go to **Setup > Email > Server**.



2. Enter the **Receiving** and **Sending** details.

Server Tab Settings	
Receiving	
Incoming Server	The address of the incoming server the system uses to receive emails.
Protocol	The protocol of the incoming email account.
Transport	This option is visible if IMAP or POP3 is set for the email account protocol. Select this option to secure the transport layer to encrypt the whole channel, if relevant to your email server configuration.
Port	Leave blank to use the default, or enter a port number.
Interval	Enter a timing interval if polling is enabled. This interval represents the period of time the system uses to check if any messages need to be polled.
User Name	Enter the user name for the incoming mail server.
Password	Enter the account password.
Sending	
Reply To	The default system email address and the account that the email polling feature uses.
Outgoing Server	The address of the outgoing (or SMTP) server the system uses to send emails.
Authentication	If your SMTP server requires sender identification before sending email, select the option that best suits your server configuration. The **User Name** and **Password** fields are shown if you select an option other than **None**.
Port	Leave blank to use the default, or enter a port number.
User Name	When authentication is required, enter the SMTP authorization details.
Password	When authentication is required, enter the account password.

3. Click **Save**.

Reset Button

To delete the content in all fields within the **Server** tab, click **Reset**. The system shows a message asking you to verify your selection. Click **OK** to verify and clear all fields.

Test Button

To test if the email configuration is correct for sending email, click **Test**. This action sends a message to the administrator using the outgoing server details provided on this screen.

Setup

The **Email > Setup** tab allows you to define the behavior of the email polling functionality.

➔ To set the email functionality details:

1. Go to **Setup > Email > Setup**.
2. Define the settings to suit your organizational requirements:

Setup Tab Options	
General Settings	
Email Polling	Enable email polling to allow the application to check for new email received in the mailbox on the incoming server defined within the **Server** tab. When a new message arrives, the system sends a message to the sender acknowledging his or her message. You can customize system-generated messages within the **Setup > Email > Templates** tab. NOTE You cannot change this option if the **Create/Update via Email** option is selected.
Interval	Enter the time period the system uses to check the incoming server for any messages sent to the system.
Include Banner	Select **Yes** to include a banner within emails that the system sends. You can define the banner to use in **Setup > Customize > Banners > Public/Email Banner**.
Report Errors	When enabled, details of any system errors occurring while the application is running are sent to the development lab.
Email Failures	When enabled, the system sends an alert to the email address associated with the default administrator account if an email send or receive event fails.
Copy Type	For emails sent within requests, choose whether to copy or blind copy the technicians in correspondence.
Requests	
Create via Email	Select this option if you want the system to create requests from emails addressed to the support system and to team addresses aliased on the email server. (See Email Polling for more information.) NOTE The **Email Polling** option is locked to **Yes** when this option and the **Accept Anonymous** option are enabled. To use this feature, you must also ensure that the **Incident** and **Service Request** options at **Setup > Privileges > Customer** are set to either **Create** or **Create and Edit**.
Update via Email	Select this option if you want the system to updaterequests from emails addressed to the support system and to team addresses aliased on the email server. (See Email Polling for more information.) NOTE The **Email Polling** option is locked to **Yes** when this option and the **Accept Anonymous** option are enabled. To use this feature, you must also ensure that the **Incident** and **Service Request** options at **Setup > Privileges > Customer** are set to either **Create** or **Create and Edit**.

Setup Tab Options	
Use Subject Actions	When enabled, the system allows limited manipulation of requestsby technicians, team leaders and supervisors using the subject line. To denote actions append '>>>' to the end of the subject followed by a semi-colon delimited list of keywords and new values. Permitted Keywords (and expected values) are: escalation[Layer Name] team[Team Name] technician[User Email] priority[1-4] urgency[1-5] impact[1-5] status[Status Name]
Generate Accounts	When enabled, the system will attempt to create a customer account for any sender from a whitelisted domain, rather than simply rejecting the message. If the originating domain is not on the whitelist, the email will be rejected.
Accept Anonymous	When enabled, the system creates requests from emails received from email addresses that do not exist in the application's database. (Refer below for more information regarding this setting.)
Notify Alternate Team	When enabled, and if there is more than one team created for a process, the **Alternate Team** field is shown within the **Summary** tab of a request. The system notifies members of the alternate team relative to the settings defined for the current team, and for new notes, if **Technicians** is selected in the **New Notes** screen.
Self Mail	When set to **Yes**, new notes that a technician or customer creates are also sent to them when they save the note.
Include Request Status	When enabled, the system includes the request status within the email subject line of any correspondence sent from the system regarding a request.
Include Request Priority	When enabled, the system includes the request priority within the email subject line of any correspondence sent from the system regarding a request.
Include Request Subject	When enabled, the system includes the content from the subject line of a request within the email subject line of any correspondence sent from the system regarding a request.
Team Not Found	Select how the system should handle requests received from emails that are incorrectly addressed or aliased. By default, this option is set to **Reply Email**, which sends an automatic reply to the email sender using the **NoTeamFound** error message template without creating the request. Alternatively, if you have default process teams configured at **Setup > Privileges > Requests**, you can select one of these teams here. When the system receives an incorrectly addressed or aliased email, it automatically creates a request and assigns it to the team you selected without notifying the email sender about the error.
Message Size Limit	Set the limit (in megabytes) for file attachments in email correspondence. When an attachment is larger than the limit set here, it is replaced with a link that the email recipient can use to download the file. If this value is set to **0**, attachments of any size are included in emails. **IMPORTANT** When setting this limit, keep in mind that email servers your external

Setup Tab Options	
	customers use may also have their own email size limits. In this case, even though emails with very large attachments can be sent from the Service Desk, your customers may not be able to receive them.
Notes	
Parse Instance Prefix	The system uses an instance prefix to process email correspondence from multiple instances. If this functionality is not required, set the option to **No**.
Default Recipients	You can define the default email settings for the recipient groups found within the notes editor for requests. Define the groups that are more likely to be sent every new note created for a request.
Default Locale	Set the default language to use for email correspondence. This option is applied to the **Email Locale** field in the **Customer Information** and **User Information** screens and can adjusted on a per account basis, as required. NOTE You can define the content for automated emails sent from the system for languages other than English within the **Setup > Localization > Content** tab.

3. Click **Save**.

Receiving Emails from Anonymous Email Addresses

When the **Accept Anonymous** option is enabled, the system creates requests from emails received from addresses not recorded in the application. This process involves the system user being assigned as the customer, and the original sender being added to the email address list in the **Notify** section.

Note that enabling this option may increase the likelihood of spam emails being converted into unwanted requests in the system. Email administrators should ensure they perform regular spam filtering when the **Accept Anonymous** option is enabled. LiveTime does not monitor, parse, or filter emails before creating requests from emails.

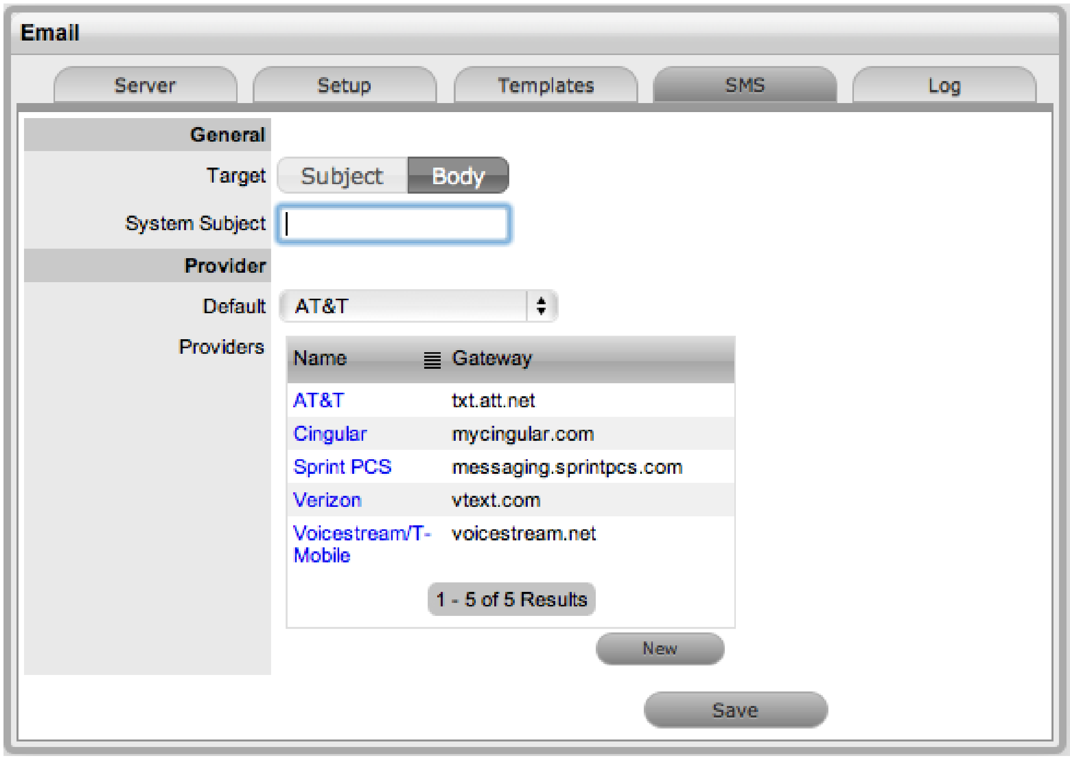
SMS

Use the **Setup > Email > SMS** tab to configure the details of the SMS service providers that should be applied within the customer and user account information screens. Within this tab, you can define the default SMS provider, which the system applies to customer account information when the customer or user selects SMS notification as the preferred method of notification.

This tab also allows you to customize the subject line for providers that require a security token or account number in the subject line, with the message to be sent in the body. On install, the default setting is set to **Subject**, not requiring an account number or security token as the provider only requires email server information. This setting can be customized to meet your provider's requirements.

➔ To configure SMS settings:

1. Go to **Setup > Email > SMS**.



2. Set the **Target** location for sent messages:
   - **Subject**: Select when the system is to include the message content in the email subject field, as the service provider only needs to know the email server details.
   - **Body**: Select when the system is to include the message content in the email body, allowing a **System Subject** to be configured as required by the service provider, with content such as an account number or security token.
3. Click **Save**.

➔ To edit the details of default entries:

1. Select the SMS service provider whose details you want to edit.
2. Edit the details.

3. Click **Save**.

➔ To add a service provider:

1. Click **New**.
2. Enter the **Name** and **Gateway** details.
3. Select **Save**.
4. Set the default service provider from the **Default** list, if required.
5. Click **Save**.

Email Content Templates

You can customize the content and template details for emails that the system automatically generates within the **Templates** tab.

The system generates labels for the templates in English, but you can customize these labels within the **Setup > Localization > Content** tab.

The filter views within the **Templates** tab include the following:

View Option	Description
Email Content Templates	Allows you to customize the content of and insert parameters in emails that the system automatically generates.
Email Summary Tables	Allows you to configure the content of templates that are included in automatically-generated emails that summarize the specific details of the matter at hand. See Summary Templates for more information.
Email Keywords	Allows you to enter alternative words for the system to use when sending mail and parsing emails received at the support email address. See Keywords for a description of where the system uses these words.
Error Message Templates	Allows you to customize the error messages that the system automatically generates. See Error Messages for more information.
Out of Office Subjects	Allows you to customize multiple out of office strings for the system to identify in incoming email subject lines, so it knows to ignore the email. See Out of Office for more information.
SMS Templates	Allows you to customize the content of and insert parameters in text messages that the system automatically generates.

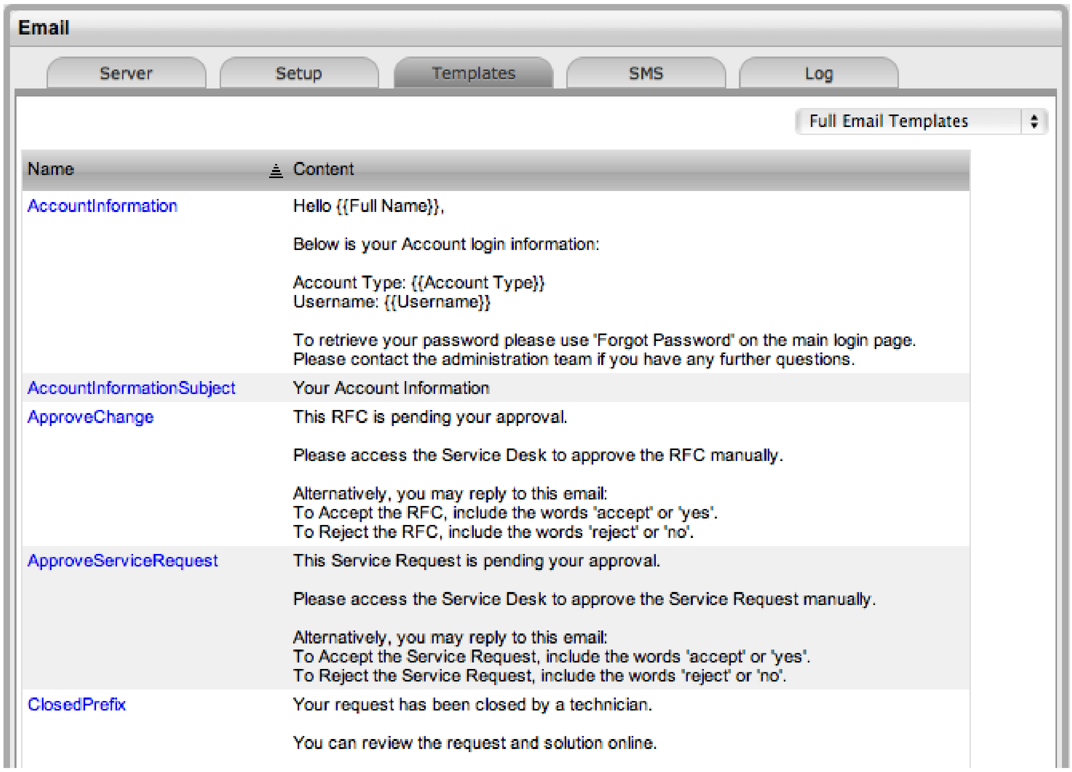
Configuring Email Content Templates

You can configure content for the automatically generated email messages sent by the system within the **Email Content Templates** filter screen of the **Setup > Email > Templates** tab. In addition to customizing the content of the messages, you can also insert parameters to call specific details sourced from the database.

You can configure template parameters, as well as the look and feel of email messages sent about knowledge base articles, items, requests, invoices, and contracts within the **Email Summary Tables** filter screen of the **Setup > Email > Templates** tab.

➔ To configure messages:

1. Go to **Setup > Email > Templates** and select the **Email Content Templates** filter.
   - A list of available email templates is shown.



Email Templates	
Account Information	Message sent to provide customers or users with the login details of their account.
Account Information Subject	Content to include in the email subject line when customers or users are emailed the login details of their account.
Approve Change	Message sent to managers when a change request moves to an approval state. The configured message must ask managers to be specific with their reply, using: • The words 'accept' or 'yes' to accept the change • The words 'reject' or 'no' to reject the change
Approve Service Request	Message sent to managers when a service request moves to an approval state. The configured message must ask managers to be specific with their reply, using: • The words 'accept' or 'yes' to accept the change • The words 'reject' or 'no' to reject the change
Closed Prefix	Included at the beginning of the email when a request is closed.
Closed Timeout	Used by the handshake facility and prefaces emails sent as incident notes using the **Propose** button.
Close Request	Message included in the email that uses the handshaking facility and proposes a solution to the customer.
Close Request Link	Message sent with a hyperlink to enable customers to keep a request open after a possible solution has been sent to them. This template is used in conjunction with the Close Request message when a technician uses the handshaking facility to propose

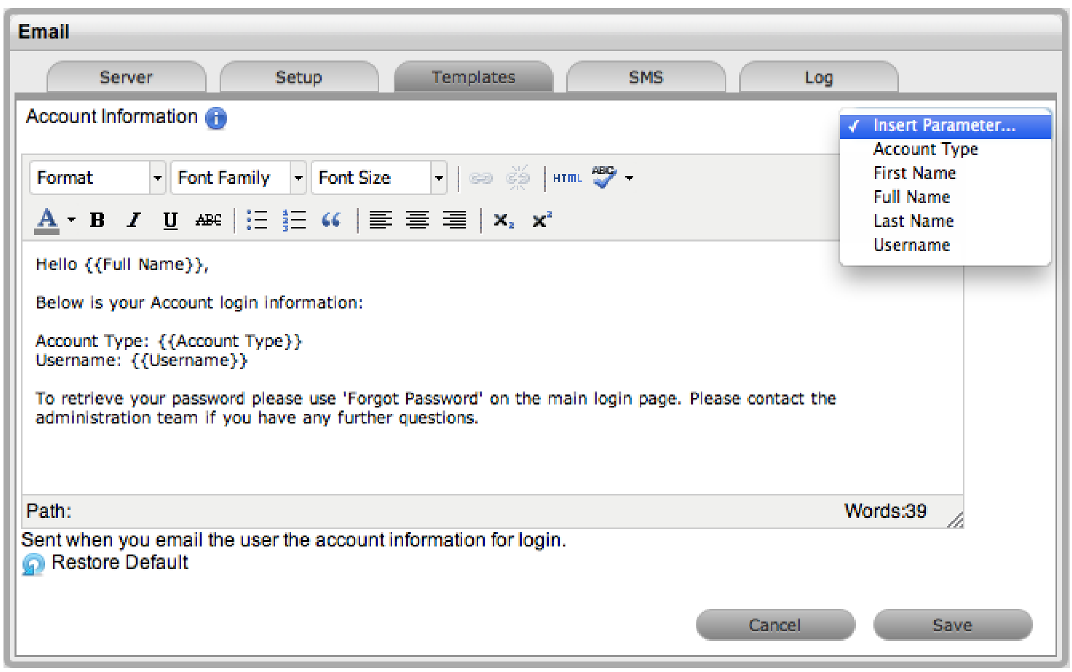
Email Templates	
	a note as a solution.
Contract Expired Message	Email sent to customers when their contract has expired and they log a new request or they have existing requests still open after the expiration date.
Contract Time Elapsed	Subject line for Contract Expired Message.
Contract Time Low	Email sent to customers when the amount of time remaining on their contract triggers the low time percentage threshold. (The default percentage is defined in the **Setup > Billing > Contracts** tab.)
Create Change	Included at the beginning of the email to customers when they first create a change request.
Create Incident	Included at the beginning of the email to customers when they first create incidents.
Create Problem	Included at the beginning of the email to customers when they first create a problem.
Create Service Request	Included at the beginning of the email to customers when they first create a service request.
Invoice Prefix	Included at the beginning of an email to the customer with a newly created invoice. (This email content is also used for the email sent to customers when the **Enable Contracts** option in **Setup > Billing** is enabled and the number of days for the **Contract Renewal Time** is triggered.)
Item Status Change Prefix	Included at the beginning of the email sent to a customer when an item status has been amended and the option to notify the customer is selected in the **Item Information** tab.
LDAP Information	Sent to provide a new customer or user the login details of their account after a directory server synchronization.
New Attachment To Tech	Sent to a user when a new attachment is added to a request in the Customer Portal.
No Account	Message sent to customers when they have attempted to log incidents through email but are not registered with the system. NOTE You can customize the subject line of this email in the **Error Message Templates** filter of the **Setup > Email > Templates** tab.
No Contract Create Request Summary	Message sent to customers to inform them that work cannot commence on a newly logged request as no contract is in place.
No Contract Reminder Summary	Reminder message sent to customers to inform them that work cannot commence on a newly logged request as no contract is in place.
Note Closed	Email sent to customers when they have sent an email to the system regarding a request is already closed.

Email Templates	
Prefix	
Note Prefix	Included each time a new note is associated with an existing request.
Password Lost	Sent to provide customers or users with their login information as a result of them selecting the **Forgot Password** link on the login page.
Password Question	Sent to provide customers or users with a challenge question for resetting their login password as a result of them selecting the **Forgot Password** link on the login page. (You can enable the **Password Questions** option on the **Setup > Privileges > System** tab. The customer or user can set the questions and answers within the **My Account Information** screen.)
Password Reset	Sent to provide customers or users their login information after their password has been reset within the **Customer Information** or **User Information** screen.
Planned Outage Prefix	Included in the email sent when an item is scheduled to be taken offline.
Request Accepted Prefix	Acknowledgment sent to the person responsible for a request in an approval state when the request is approved.
Request Deescalate From To	When a request is manually de-escalated, this message is sent to the newly assigned technician.
Request Deescalate Not Available	When a request is manually de-escalated, this message is sent to the previously assigned technician to let him or her know that the request is no longer available to work on.
Request Escalate From To	When a request is manually escalated, this message is sent to the newly assigned technician.
Request Escalate Not Available	When a request is manually escalated, this message is sent to the previously assigned technician to let him or her know that the request is no longer available to work on.
Request Reassigned Manager Prefix	This message is sent when the manager responsible for processing the approval of a request is changed, and is sent to the previously assigned manager.
Request Reassigned Manager To Tech Prefix	The message sent when a request moves from a manager approval state to the newly assigned technician.
Request Reassign Prefix	When a request is reassigned, this message is sent with the request details to the previously assigned user.
Request Reassign To Prefix	When a request is reassigned, this message is sent with the request details to the newly assigned user.

Email Templates	
Request Rejected Prefix	Acknowledgment sent to the person responsible for a request in an approval state when a request is rejected.
Request Status Changed Prefix	Message sent when the status of a request is moved from **Pending-No Contract** to the default open state of the assigned workflow. This message is sent to the assigned technician.
Request Status Changed Subject	Message sent when the status of a request is moved from **Pending-No Contract** to the default open state of the assigned workflow. This message is sent to the assigned technician.
Request Workaround	Message sent when a workaround is applied to a request in the **Analysis** tab and emailed to the customer.
Responder	Message sent from the monitored email account when the system does not accept new requests via email.
Signature	The details included at the bottom of emails sent from the system. NOTE You can customize signatures on a per team basis in the **Setup > Localization > Content** tab.
Sla Breached	Email sent to the assigned user when an SLA is breached.
Sla Breached Subject	The content in the subject line of an email sent to an assigned user and service level manager, and if configured within the SLA, to the team lead when an SLA is breached.
Sla Time Elapsed	Sent to the assigned user and service level manager, and if configured within the SLA, to the team lead when an SLA reminder or warning is triggered.
Sla Time Elapsed Subject	The content in the subject line of an email sent to an assigned user and service level manager, and if configured within the SLA, the team lead, when an SLA reminder or warning is triggered.
Survey Completed	Thank-you message automatically generated for customers who have submitted a completed survey.
Survey Completed Subject	The content in the subject line of the Survey Completed email.
Survey Customer Satisfaction Subject	The content in the subject line of an email sent to customers inviting them to complete a customer satisfaction survey.
Survey Invitation Subject	The content in the subject line of the Survey Prefix email.
Survey Prefix	Message sent when a customer or user is invited to complete a survey.
Survey Reminder	Message sent to customers or users to remind them to complete a survey.

Email Templates	
Prefix	
Survey Reminder Subject	The content in the subject line of the Survey Reminder Prefix email.
Survey Score Notification	Message sent when the **Low Score Email** option is enabled in a survey and a survey respondent scores below the configured **Trigger Score**. This message is sent to the email addresses entered in the survey's settings for follow-up purposes.
Survey Score Notification Subject	The content in the subject line of the Survey Score Notification email.

2. Select the required message name link.
   - The default message text is shown.
3. Edit the message including inserting any relevant parameters.



4. Click **Save**.

NOTE ApproveChange, ApproveServiceRequest, CreateProblem, CreateChange, and CreateServiceRequest do not apply to the Help Desk edition of LiveTime.

Using Email for Manager Approval

As the system allows managers to approve or reject RFCs and service requests through email, the automatically generated emails must include specific instructions for the manager to use the words "accept" or "yes" to approve, or "reject" or "no" to reject in their reply. This usage is essential as the system only recognizes these key words when it automatically processes the email reply from the manager.

NOTE This feature is not applicable to the Help Desk edition of LiveTime.

To use the manager approval process through email, you must enable the email polling functionality in the system's email setup and an incoming email address must be present in the relevant team details.

Email Parameters

The options included in the **Insert Parameter** list found within the **Email Content Templates** originate from the following areas of the system.

Parameters for the **AccountInformation**, **LDAPInformation**, and **PasswordInformation** templates:

Parameter	Source
Account Type	The default user role derived from the **Customer Information** or **User Information** screen.
First Name	Derived from the **Customer Information** or **User Information** screen.
Full Name	Derived from the **Customer Information** or **User Information** screen and combines the first and last name.
Password	Derived from the **Customer Information** or **User Information** screen.
Title	Derived from the **Customer Information** or **User Information** screen. NOTE This option is available if **Enable Titles** is selected within **Setup > Privileges > Customer**.
Username	Derived from the **Customer Information** or **User Information** screen.

Parameters for the **Request**, **ApproveChange**, **ApproveServiceRequest**, **Closed**, and **ClosedTimeout** templates:

Parameter	Source
Classification	Drawn from the **Classification** field in the **Summary** tab of a request.
Close Date	Shows the **Close Date** as recorded in the Service Terms information of the request.
Country	Derived from the **Country** field in the **Customer** tab of a request.
Customer First Name	Shows the first name of the customer who logged the request.
Customer Last Name	Shows the last name of the customer who logged the request.
Customer Name	Shows the name of the customer who logged the request.
Customer Phone	Derived from the **Contact Phone** field in the **Summary** tab of a request.
Customer Room	Derived from the **Item Room** field in the **Summary** tab of a request.
Date Style	Detail drawn from the **Setup > Privileges > Customer** tab.
Due Date	Derived from the **Service Terms** window in the **Summary** tab of a request.
Email Locale	Derived from the **Contact** tab of the **Customer Information** screen.
FSC Date	Derived from the **Service Terms** window in the **Summary** tab of a change request.
Handshaking Close Days	Derived from the organizational unit associated with the customer or number of default days defined in the **Setup > Privileges > Requests** tab.
Identifier	Derived from the **Item Identifier** field in the **Summary** tab of a request.
Item #	Derived from the item details recorded in the **Customer** tab of a request.
Item Type	Derived from the item details recorded in the **Customer** tab of a request.

Parameter	Source
Last Note ID	Shows the system-generated note identification number as a hyperlink, for the note last added to a request. When customers or users select this link, they are brought to the **Request Information** screen for that request inside the system.
Notes	Details the number of notes added to a request.
Open Date	Derived from the **Service Terms** window in the **Summary** tab of a request.
Org Unit	Derived from the **Organizational Unit** field in the **Customer** tab of a request.
Priority	Derived from the priority details as recorded in the **Summary** tab of a request.
Process	Shows if the request is a service request, incident, problem, or change request.
Report Date	Shows the date the request was logged with the service desk
Request Description	Derived from the initial description entered for the request, as recorded in the **Summary** tab.
Request Id	Shows the system-generated request identification number.
Request URL	Shows the request identification number as a URL that allows the customer to enter the system within the specific request screen.
SLA Resolution Time	Shows the targetrequest resolution time according to the applicable Service Level Agreement
SLA Response Time	Shows the targetrequest response time according to the applicable Service Level Agreement
SLA Restoration Time	Shows the targetrequest restoration time according to the applicable Service Level Agreement
Schedule Date	Derived from the forward schedule of change date entered for the request
Subject	Derived from the subject entered for the request that is populated from an email subject line or directly into the application, and recorded in the **Summary** tab.
Team	Shows the team assigned to manage the request.
Team Phone	Displays the team telephone number as recorded in the **Team Information** screen.
Technician First Name	Shows the first name of the technician assigned to the request
Technician Last Name	Shows the last name of the technician assigned to the request
Technician Name	Shows the name of the technician assigned to the request.
Title	Derived from **Customer Information** or **User Information** screen. NOTE This option is available if **Enable Titles** is selected within **Setup > Privileges > Customer**.

Parameter for the **ContractTime** templates:

Parameter	Source
Threshold	Draws the percentage from the **Threshold** field in the **Setup > Billing > Contracts** tab.

Parameters for the **Invoice** templates:

Parameter	Source
Adjustment	Drawn from the **Cost Calculations** field, and is the amount that is deducted from the sub-total.
Customer Name	Derived from the **Customer Details Name** field on the invoice.
Customer Title	Derived from the **Customer Information** screen. NOTE This option is available if **Enable Titles** is selected within **Setup > Privileges > Customer**.
Delivery Status	Shows the assigned **Delivery Status** from the invoice.
Due Date	Drawn from the **Order Details** of the invoice.
Entered By	Drawn from the **Order Details** of the invoice.
Invoice #	Shows the system-generated invoice number.
Invoice Date	Drawn from the **Order Details** of the invoice.
Invoice Status	Derived from the **Status** field of the invoice.
Line Items Total	Derived from the **Costs** section of the invoice and shows the overall cost for items on the invoice.
List of Item Type Line Items	When items are associated with an invoice, shows the details recorded in the **Item Type** field.
List of Maintenance Contract Line Items	When contracts are associated with an invoice, shows the details recorded in the **Contract Type Name** field.
Notes	Shows any details recorded in the **Notes** field of the invoice.
Order Date	Drawn from the **Order Details** and shows the date the invoice was received.
Org Unit	Derived from the **Customer Details** and shows the customer's associated organizational unit.
PO Number	Drawn from the **Order Details** and shows the purchase order number associated with the invoice.
Payment Date	Shows date of payment for the invoice based on details recorded in the **Invoice Status** section.
Payment Status	Shows if payment has been received for the invoice based on details recorded in the **Invoice Status** section.
Processed By	Drawn from the **Order Details** and shows the name of the user who processed payment of the invoice.
Shipping	Shows the shipping costs as derived from the **Costs** section of the invoice.
Shipping Date	Derived from the **Status** section of the invoice and shows the expected shipping date of goods.
Tax	Drawn from the **Costs** section and shows the tax applied to the invoice.
Tax Rate	Drawn from the **Costs** section and shows the tax rate applied to the invoice.
Terms and Conditions	Shows details recorded in the **Terms and Conditions** field of the invoice.
Total	The grand total of the invoice, including tax and any adjustments.
Tracking Number	Drawn from the **Tracking Number** field within the **Status** section of the invoice.

Parameters for the **ItemStatusChange** template:

Parameter	Source
Category	Shows the item category from the **Item Information** tab.
Criticality	Shows the assigned criticality of the item as recorded in the **Item Information** tab.
Item Number	Shows the item number as recorded in the **Item Information** tab.
Item Type	Details the item type as entered in the **Item Information** tab.
Status	Shows the status of the item as recorded in the **Item Information** tab.

Parameter for the **NewAttachment** template:

Parameter	Source
File Name	Allows the file name of the newly received attachment to be included in the email to the user.

Parameters for the Escalation templates:

Parameter	Source
Current Technician	Shows the name of the newly assigned technician.
Previous Technician	Shows the name of the technician who was previously assigned the request.
Process	Shows the ITIL process of the request; for example, change management or incident management.
Request ID	Shows the request identification number.

Parameters for the Request Status Update templates:

Parameter	Source
New Status	Shows the details of the newly assigned workflow state.
Previous Status	Shows the status name previously assigned to the request.
Process	Shows the ITIL process of the request; for example, change management or incident management.
Request ID	Shows the request identification number.

Parameters for the SLA templates:

Parameter	Source
Hr/Min	Shows the time as recorded in hours or minutes, based on the SLA configuration.
Name	Shows the name of the SLA.
Phase	Shows the SLA phase of **Response Time**, **Restoration Time**, or **Resolution Time**.
Process	Shows the ITIL process of the request; for example, change management or incident management.
Time Elapsed	Shows the amount of time passed for the phase of the SLA.
Time Limit	Shows the amount of total time associated with the phase of the SLA.

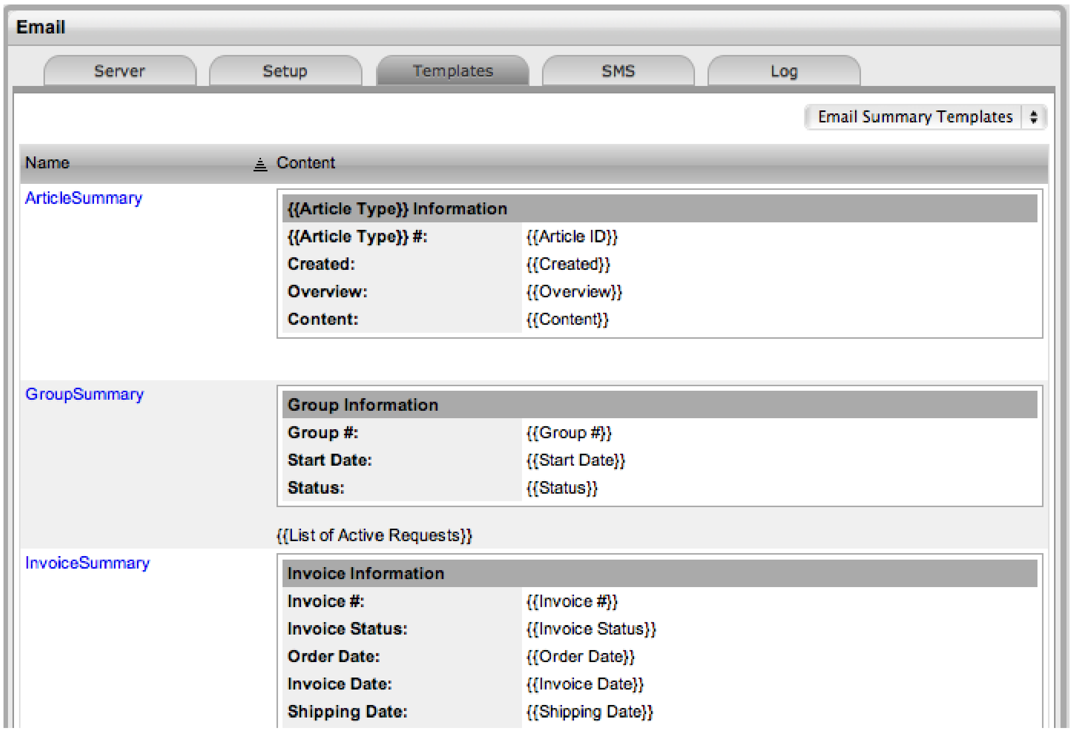
Parameters for the Survey templates:

Parameter	Source
Description	Shows the content included in the **Description** field of the survey.
Name	Shows the title of the survey.
Number of Questions	Shows the number of questions included in the survey.

Email Summary Tables

Automated email messages the system sends in relation to requests, knowledge base articles, items, invoices, and contracts include a summary table of information. You can customize the information included in these tables, as well as their look and feel, within the **Email Summary Tables** filter screen of the **Templates** tab.

While knowledge of HTML is useful when customizing the templates, it is not mandatory.



The templates for messages that you can configure within this screen include the following:

Message	Description
Article Summary	Email that notifies the user about the pending review date of a knowledge base article.
Group Summary	Email sent to the User when a request group is created, updated, or closed.
Invoice Summary	Email sent to customers that summarizes their invoice information and is included in all correspondence regarding the invoice. This summary is forwarded with the Invoice Prefix content that is configured in the **Email Content Templates** filter view of the **Setup > Email > Templates** tab. This template is also used for the email sent to customers when the **Enable Contracts** option in **Setup > Billing** is enabled and the number of days for the subscription "Contract Renewal Time" is triggered.
Item Summary	Email sent to a customer when a service item moves into an inactive state if the email notification option is selected within the item.
Maintenance Contract	Email sent to customers including their service maintenance contract details.

Message	Description
Summary	
Request Summary	Email sent to users when a request is created or updated.
Survey Summary (General)	Included in system-generated emails regarding survey notification and reminders.
Survey Summary (Serviced Customers)	Included in system-generated emails regarding survey notification and reminders to serviced customers.

→ To customize the message template:

1. Go to **Setup > Email > Templates**.
2. Select the **Email Summary Tables** filter.
3. Select the name of the template you want to customize.
4. Click **Edit**.
5. Modify the table, as required.
   - As part of the customization, you can use system parameters included in the **Insert Parameter** list. These parameters help you ensure the customized template uses the correct format for the information included in the email.

Icon	Description
Insert Parameter	The list options ensure that the correct HTML format is used for these details to be included in the customized message.
Restore Default	Restores the system default email message.

6. Adjust the Date Style format, if relevant.
7. Click **Save**.

Template Field Options

Article Summary

This template is included in the system-generated emails for knowledge base article reviews.

Field	Source
Article ID	Knowledge base article (KBA) number.
Article Title	Displays content drawn from the **Title** field.
Article Type	Shows if it is a general article, solution workaround, or FAQ.
Content	Drawn from the **Title** field of a KBA.
Created	Displays the date the article was created.
Overview	Derived from the **Problem** field of a KBA.

Group Summary

This template is included in system-generated emails when a request group is created, updated, and closed.

Field	Source
Description	Derived from the **Description** field on the **Details** tab of a request group.
Group #	The identifying group number generated by the system for the request group.
List of Active Requests	Indicates the number of requests in an active state contained in the request group.
Name	Drawn from the **Name** field on the **Details** tab of a request group.
Start Date	Derived from the date that a request group is created.
Status	Derived from the **Status** field on the **Details** tab of a request group.

Invoice Summary

This template is used when the **Email** button is selected within the **Invoice Editor** screen and when an invoice is created and updated.

Field	Source
Adjustment	Drawn from the **Cost Calculations** field, and is the amount that is deducted from the sub-total.
Customer Name	Derived from the **Customer Details Name** field on the invoice.
Customer Title	Derived from **Customer Information** screen. NOTE This option is available if the **Enable Titles** option is enabled within **Setup > Privileges > Customer**.
Delivery Status	Shows the assigned delivery status from the invoice.
Due Date	Drawn from the **Order Details** of the invoice.
Entered By	Drawn from the **Order Details** of the invoice.
Invoice #	Shows the system-generated invoice number.
Invoice Date	Drawn from the **Order Details** of the invoice.
Invoice Status	Derived from the **Status** field of the invoice.
Line Items Total	Derived from the **Costs** section of the invoice and shows the overall cost for items on the invoice.
List of Item Type Line Items	When items are associated with an invoice, shows the details recorded in the **Item Type** field.
List of Maintenance Contract Line Items	When contracts are associated with an invoice, shows the details recorded in the **Contract Type Name** field.
Notes	Shows any details recorded in the **Notes** field of the invoice.
Order Date	Drawn from the **Order Details** and shows the date the invoice was received.
Org Unit	Derived from the **Customer Details** and shows the customer's associated organizational unit.
PO Number	Drawn from the **Order Details** and shows the purchase order number associated with the invoice.
Payment Date	Shows date of payment for the invoice based on details recorded in the **Invoice Status** section.

Field	Source
Payment Status	Shows if payment has been received for the invoice based on details recorded in the **Invoice Status** section.
Processed By	Drawn from the **Order Details** and shows the name of the user who processed payment of the invoice.
Shipping	Shows the shipping costs as derived from the **Costs** section of the invoice.
Shipping Date	Derived from the **Status** section of the invoice and shows the expected shipping date of goods.
Tax	Drawn from the **Costs** section and shows the tax applied to the invoice.
Tax Rate	Drawn from the **Costs** section and shows the tax rate applied to the invoice.
Terms and Conditions	Shows details recorded in the **Terms and Conditions** field of the invoice.
Total	The grand total of the invoice, including tax and any adjustments.
Tracking Number	Drawn from the **Tracking Number** field within the **Status** section of the invoice.

Item Summary

This template is included in system-generated emails for item status changes:

Field	Source
Category	Shows the item category from the **Item Information** tab.
Criticality	Shows the assigned criticality of the item as recorded in the **Item Information** tab.
Item Number	Shows the item number as recorded in the **Item Information** tab.
Item Type	Details the item type as entered in the **Item Information** tab.
Status	Shows the status of the item as recorded in the **Item Information** tab.

Maintenance Contract Summary

This template is included in system-generated emails regarding the creation and update of service contracts.

Field	Source
Contract #	Shows the system-generated contract number.
Contract Type	Specifies if the contract is a per incident or per item contract.
End Date	Includes the date the current contract date ends.
Invoice #	Shows the system-generated invoice number.
Remaining	Shows the amount of time remaining on a contract.
SLA	Includes the name of the SLA included as part of the contract.
Start Date	Shows the commencement date of the current valid contract.

Maintenance Contract Summary By Month

This template is included in system-generated emails regarding the creation and update of service contracts that are automatically renewed on a monthly or quarterly basis.

Field	Source
Contract #	Shows the system-generated contract number.
Contract Type	Specifies if the contract is a per incident or per item contract.
End Date	Includes the date the current contract date ends.
Interval End Date	Shows the contract.
Interval Remaining	Shows the contract.
Interval Start Date	Shows the contract.
Invoice #	Shows the system-generated invoice number.
Remaining	Shows the amount of time remaining on a contract.
SLA	Includes the name of the SLA included as part of the contract.
Start Date	Shows the commencement date of the current valid contract.

Outage Summary

This template is included in system-generated emails related to planned outages.

Field	Source
Outage Items	Shows the details of items associated with the outage.
Outage Reason	Displays the content of the **Reason** field in the **Outage Information** screen.
Outage Related Requests	Shows requests related to the outage.
Outage Schedule	Details the start and end date of the outage.

Request Summary

The request summary template is included in emails relating to the creation, update, and closure of requests.

Field	Source
Classification	Derived from the **Classification** field in the **Summary** tab of a request.
Close Date	Derived from the **Service Terms** window in the **Summary** tab of a request.
Country	Derived from the **Country** field window in the **Customer** tab of a request.
Customer Name	Derived from the **Customer** field in the **Summary** tab of a request.
Customer Phone	Derived from the **Contact Phone** field in the **Summary** tab of a request.
Customer Room	Derived from the **Item Room** field in the **Summary** tab of a request.
Date Style	Detail drawn from the **Setup > Privileges > Customer** tab.
Due Date	Derived from the **Service Terms** window in the **Summary** tab of a request.
Email Locale	Derived from the **Customer Information** details screen and defines the language used by emails sent from the system.

Field	Source
FSC Date	Derived from the **Service Terms** window in the **Summary** tab of a change request.
Handshaking Close Days	Drawn from the **Setup > Privileges > System** tab, unless overridden by the number of days defined in the **User > Organizational Units > Details** tab of the User Portal.
Identifier	Derived from the **Item Identifier** field in the **Summary** tab of a request.
Item #	Derived from the item details recorded in the **Customer** tab of a request.
Item Type	Derived from the item details recorded in the **Customer** tab of a request.
Last Note Id	Shows the system-generated note identification number as a hyperlink for the note last added to a request. When customers or users select the link, they are brought to the **Request Information** screen for that request inside the system.
Notes	Details the number of notes added to a request.
Open Date	Derived from the **Service Terms** window in the **Summary** tab of a request.
Org Unit	Derived from the **Org Unit** field window in the **Customer** tab of a request.
Priority	Derived from the priority details as recorded in the **Summary** tab of a request.
Process	Shows if the request is a service request, incident, problem, or change request.
Request Description	Derived from the initial description entered for the request, as recorded in the **Summary** tab.
Request Id	Shows the system-generated request identification number.
Request URL	Shows the system-generated request identification number as a hyperlink. When customers or users select the link, they are brought to the **Request Information** screen for that request inside the system.
Subject	Derived from the subject entered for the request that is populated from an email subject line or directly into the application, and recorded in the **Summary** tab.
Team	Shows the team assigned to manage the request.
Team Phone	Shows the team telephone number as recorded in the **Team Information** screen.
Technician Name	Shows the name of the technician assigned to the request.

Survey Summary (General)

This template is included in system-generated emails regarding survey notification and reminders.

Field	Source
Title	Shows the name given to the survey.
Description	Drawn from the **Survey Description** field.
Survey Link	Shows the URL the respondent can click to complete the survey.

Survey Summary (Serviced Customers)

This template is included in system-generated emails regarding survey notification and reminders to serviced customers.

Field	Source
Title	Shows the name given to the survey.
Description	Drawn from the **Survey Description** field.

Field	Source
Survey Link	Shows the URL the respondent can click to complete the survey.
{{Request Type}} Link	Shows the URL the respondent can click to access the closed request, which is the subject of the survey.

Email Keywords

The system uses keywords to identify how to handle inbound and outbound email.

The following table includes a list of all keywords that the system uses, which words can be customized, and where they in the appear in the application:

Keyword	Direction	Description
Accept	Inbound	"Accept" or "Yes" is used to approve requests and must be included in the approval email.
Accepted	Outbound	Included in the subject line for emails generated when a request has been accepted and sent to the person responsible for managing the approval.
AddToGroup	Outbound	Not used.
Article	Outbound	Included in the subject line of emails sent to customers that contain knowledge base articles.
Author	Outbound	Included in the content of forum update messages.
AutoReply	Outbound	Included in the subject line of emails for error messages.
ChangeRequest	Inbound Outbound	Customer must include in the email subject line when updating a change request. Automatically included in the subject line of change request emails.
ChatLog	Outbound	Used in the subject line of emails sent to the customer with a copy of a chat transcript.
Classification	Inbound	Included in the subject line of emails with keyword “Item” (for example, Item Classification). Cannot be used alone.
Closed	Outbound	Included in the subject line of emails responding to requests (for example, Incident Closed).
Contract	Outbound	Used in the subject line of emails regarding contract activity (for example, Contract Active or Contract Low).
Created	Outbound	Included in the subject line of emails responding to the creation of a request (for example, Request Created or Invoice Created).
Customer	Outbound	Keyword in the subject line of emails regarding a contract status (for example, Customer Name Contract Active).
DeEscalated	Outbound	Included in the subject line of emails to users regarding a request being de-escalated.
Deleted	Outbound	Included in the subject line of emails regarding a deleted request or invoice (for example, Request Deleted).
Delivered	Outbound	Included in the subject line of emails regarding an invoice (for example, Item Delivered).
Details	Outbound	Included in the subject line of emails responding to a request (for example, Request Details or Invoice Details).
Escalated	Outbound	Included in the subject line of emails responding to a request (for example, Request Escalated).
Forum	Outbound	Keyword in subject line (for example, Forum Update).
Group	Outbound	Not used.
Hours	Inbound	Used in emails when the system refers to hours (for example, in SLA and

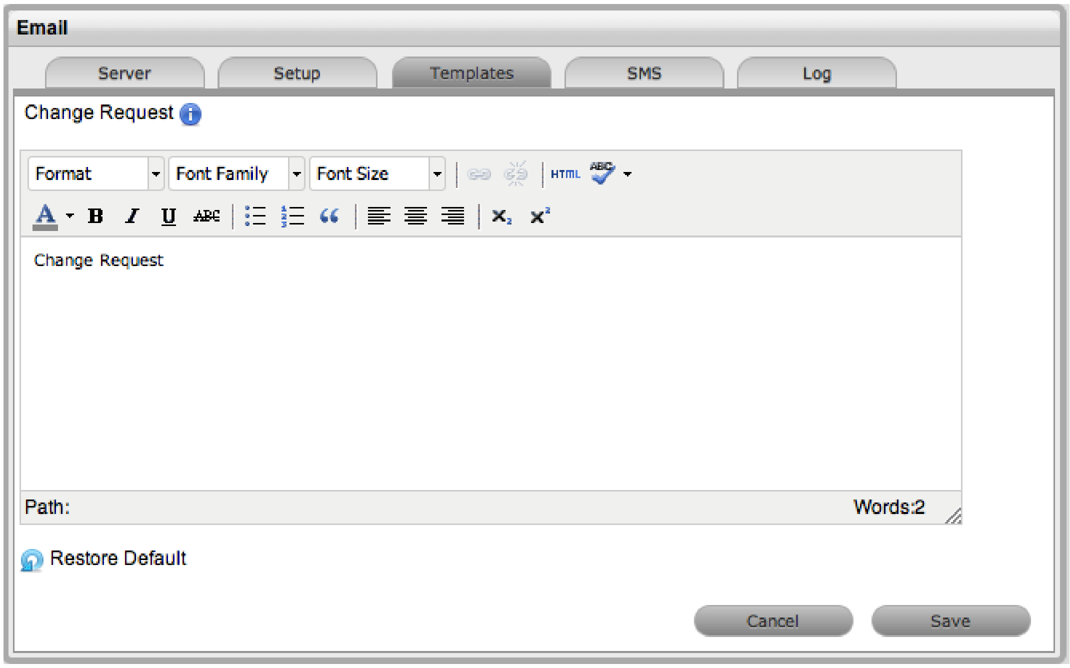
Keyword	Direction	Description
	& Outbound	contract emails).
Incident	Inbound Outbound	Customer must include in the subject line of an email when updating incidents. Automatically included in the subject line for emails generated regarding incidents.
IncidentQueue	Outbound	Inserted as the technician name when a request is assigned to the request queue and the **Technician Name** is configured as a parameter in the outgoing email.
Invoice	Outbound	Keyword in the subject line of emails (for example, Invoice Created or Invoice Delivered).
Item	Inbound Outbound	Keyword in the subject line of emails (for example, Item Classification). Keyword in the subject line of emails (for example, Item # Contract Active or Item # Status Update).
Minutes	Inbound & Outbound	Used in emails when the system refers to minutes (for example, in SLA and contract emails).
NewNote	Outbound	Included in content of email advising that a new note has been added to a request.
NewSolution	Outbound	Not used.
No	Inbound	"Reject" or "No" is used to reject requests and must be included in the rejection email.
OrgUnit	Outbound	Keyword in the subject line of emails regarding contract status (for example, OrgUnit Name Contract Active).
PlannedOutage	Outbound	Included in the subject line of automated email notifications about planned item outages.
Prefix	Inbound & Outbound	Included as prefix in the email subject line.
Problem	Outbound	Automatically included in the subject line for emails generated regarding service requests.
Reassigned	Outbound	Included in the subject line of emails sent regarding reassigned requests.
ReceivedMessage	Outbound	Included in the content of emails replying to the customer who attempts to update a request that has already been closed. (Subject line request closed.)
Reject	Inbound	"Reject" or "No" is used to reject requests and must be included in the rejection email.
Rejected	Outbound	Included in the subject line for emails generated when a request has been rejected, and is sent to the person responsible for managing the approval.
Reminder	Outbound	Reminding the manager to process a request that is waiting for approval.
Resolution	Outbound	Included in the subject line for emails generated regarding SLA resolution times.
Resolved	Outbound	Included in the subject line for emails generated regarding SLA resolution

Keyword	Direction	Description
		times.
Response	Outbound	Included in the subject line for emails generated regarding SLA response times.
Restoration	Outbound	Included in the subject line for emails generated regarding SLA restoration times.
ReviewReminder	Outbound	Included in the subject line of emails reminding the user to review an article (for example, ReviewReminder Article #).
Service Request	Inbound Outbound	Customer must include in the subject line of the email when updating a service request. Automatically included in the subject line for emails generated regarding service requests.
SolutionCreated	Outbound	Included in the subject line of emails to the customer when a solution has been created for an open request.
SolutionFound	Outbound	Included in the subject line of emails to the customer when a solution has been found and applied to an open request.
Status	Outbound	Included in the subject line of emails (for example, Item # Status Update).
SystemWarning	Outbound	Warning of unpaid invoice.
Unknown	Outbound	Used in emails when the value of parameters selected for inclusion are not known.
Unpaid	Outbound	Warning of unpaid invoice.
Updated	Outbound	Included in the subject line of emails (for example, Request Updated).
Yes	Inbound	"Accept" or "Yes" is used to approve requests and must be included in the approval email.

Customizing Keywords

→ To allow the system to recognize an alternative word for a system keyword:

1. Go to **Setup > Email > Templates**.
2. Choose the **Email Keywords** filter view.
3. Select the name of the keyword you want to customize.



4. Click **Edit**.
5. Enter the customized word.
6. Click **Save**.

Error Message Templates

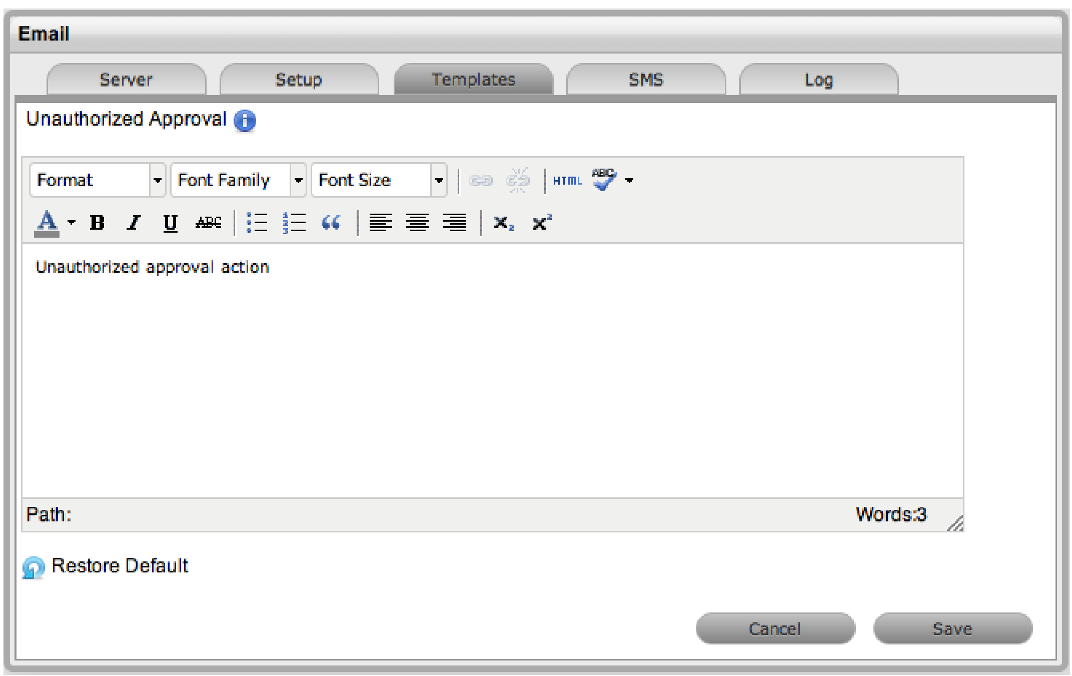
The system automatically generates and sends error messages in relation to various application activities. The following table includes details for when the system uses each error message:

Message	Description
ApprovalRequiredContent	The main content of an email sent to a customer attempting to edit a request that is currently in “Approval” state. Such requests cannot be edited until approval is given.
ApprovalRequiredSubject	Email subject line content for ApprovalRequiredContent emails.
InvalidTeam	The main content of an email sent regarding the system receiving an email that includes an address and name of a team that does not match. For example, the email may have been intended for a change team but used an incident team address, or vice versa.
NoAccessToItemContent	The main content of an email sent when the system receives a request via email that includes an item number in the subject line that the customer does not have access to.
NoAccessToItemSubject	The subject line of NoAccessToItemContent emails.
NoIncidentFoundContent	The main content of an email sent by the system when it cannot find the incident number referred to in a received email.
NoIncidentFoundSubject	Email subject line content for NoIncidentFoundContent emails.
NoPermissionChangeContent	The body of the email sent when a customer tries to log a change request through email and the **Create Change Requests** option is disabled in the **Setup > Privileges > Customer** tab.
NoPermissionChangeSubject	The subject line content included in NoPermissionChangeContent emails.
NoPermissionIncidentContent	The body of the email sent when a customer tries to log incidents through email and the **Create Incidents** option is disabled in the **Setup > Privileges > Customer** tab.
NoPermissionIncidentSubject	The subject line content included in NoPermissionIncidentContent emails.
NoPermissionProblemContent	The body of the email sent when a customer sends a request to a problem management team.
NoPermissionProblemSubject	The subject line content included in NoPermissionProblemContent emails.
NoPermissionRequestContent	The body of the email sent when a customer tries to log a service request through email and the **Create Service Requests** option is disabled in the **Setup > Privileges > Customer** tab.
NoPermissionRequestSubject	The subject line content included in NoPermissionRequestContent emails.
NoServiceIncidentContent	The content of the email sent when customers try to log incidents for a service by including the item number in the subject line of their email addressed to the incident team, and the **Service Incidents** option is disabled in the **Setup > Privileges > Customer** tab.
NoTeamFound	The main content of an email that the system sends when it receives an email sent to a team email address not in the system.
NoUserFound	The subject line included in the NoAccount emails. **NOTE** You can configure the content for emails the system sends when it receives emails from addresses that do not exist in the system (the **NoAccount** template) in the **Email Content Templates** filter of the **Setup >**

Message	Description
	Email > Templates tab.
RequestCreationErrorContent	The system-generated email sent when an error occurs during the creation of a request. An example of an error is if the database becomes unavailable during the request creation process.
RequestCreationErrorSubject	The subject line content included in the RequestCreationErrorContent email.
UnauthorizedApprove	The email sent when a manager sends an email attempting to approve a change but does not have approval permission enabled.
UnrecognizedAction	The email sent when a manager sends an email attempting to accept or reject a change but does not use the keywords YES, ACCEPT, NO, or REJECT.

→ To edit a message:

1. Go to **Setup > Email > Templates**.
2. Select the **Error Message Templates** filter.
3. Select the error message you want to edit.
4. Click **Edit**.



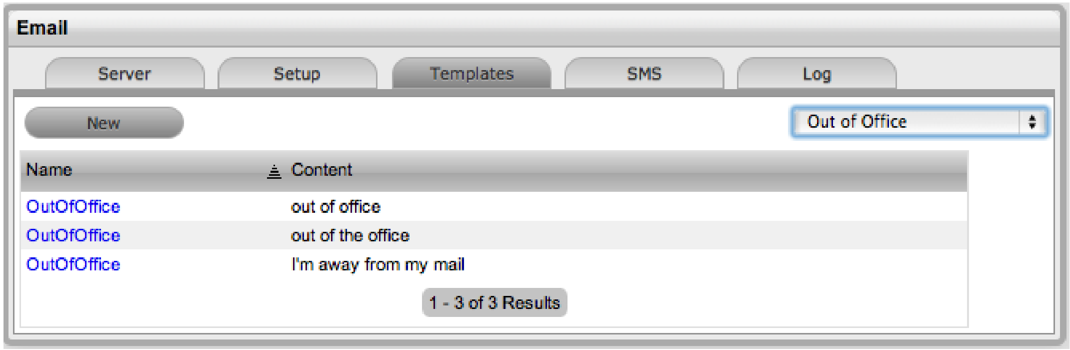
5. Update the message content.
6. Click **Save**.

Out of Office Subjects

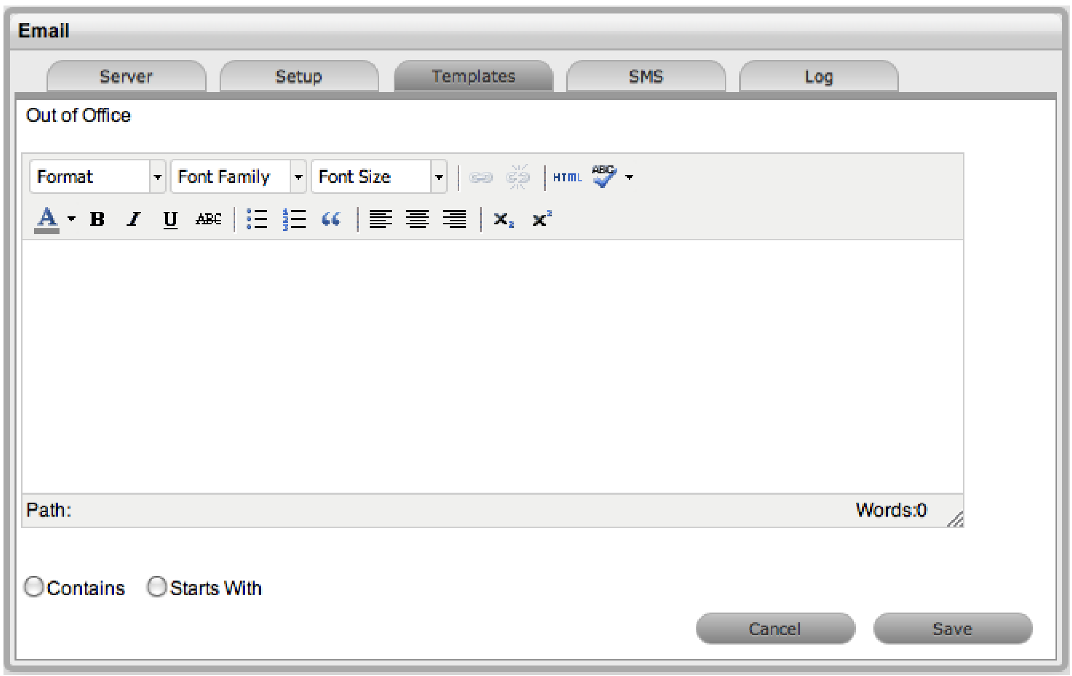
Customizing these templates allows the system to identify incoming email subject lines with out of office messages in different languages. The system then ignores emails with this content in the subject line.

➔ To add or edit out of office subject templates:

1. Go to **Setup > Email > Templates**.
2. Select the **Out of Office Subjects** filter.



3. Click **New** or select the message you want to edit.
4. Add or amend the subject line content that the system should identify as out of office email.



5. Click **Save**.

SMS Templates

You can configure the templated text and parameters for SMS messages that the system sends regarding requests and item outages within the **SMS Templates** filter screen of the **Templates** tab.

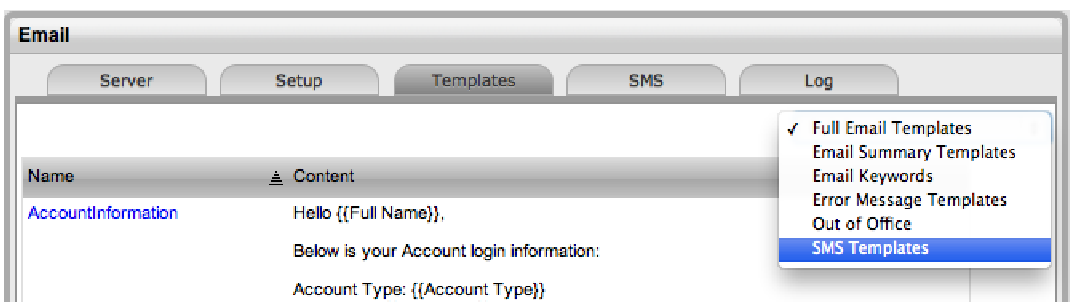
You can customize the templates for the following system messages:

SMS Templates	Description
ApproveChangeSMS	SMS sent to managers when a change request moves to an approval state.
ApproveServiceRequestSMS	SMS sent to managers when a service request moves into an approval state.
ClosedRequestSMS	Included at the beginning of the SMS when a request is closed.
ClosedTimeoutSMS	Used by the handshake facility and prefaces an SMS sent as incident notes using the **Propose** button.
CloseRequestLinkSMS	SMS sent with a hyperlink to enable customers to keep a request open after a possible solution has been sent to them. If the customer selects the link, the automated close process is deactivated.
CloseRequestSMS	SMS sent when the handshaking facility is applied and the technician proposes a solution to the customer.
CreateRequestSMS	SMS sent to a customer when a request is created.
DeleteRequestSMS	SMS sent to a user when a request is deleted.
GroupCreateSMS	SMS sent to a user when a request group has been created in the system.
InvoicePrefixSMS	SMS sent to a customer with a newly created invoice.
ItemStatusChangeSMS	SMS sent to a customer when an item status is changed.
NewAttachmentToTechSMS	SMS sent to a technician when a customer uploads an attachment to a request in the Customer Portal.
NoteClosedPrefixSMS	SMS sent to when a new note is added to a closed request.
NoteClosedSMS	SMS sent to customers when they have attempted to add a note to a request that is already closed.
NotePrefixSMS	SMS sent each time a new note is associated with an existing request.
PlannedOutageSMS	Included in the SMS sent when an item is scheduled to be taken offline.
RequestDeescalateFromToSMS	SMS sent when a request is manually de-escalated. This message is sent to the newly assigned technician.
RequestDeescalateNotAvailableSMS	SMS sent when a request is manually de-escalated. This message is sent to the previously assigned technician to let him or her know that the request is no longer available to work on.
RequestEscalateFromToSMS	SMS sent when a request is manually escalated. This message is sent to the newly assigned technician.

SMS Templates	Description
RequestEscalateNotAvailableSMS	SMS sent when a request is manually escalated. This message is sent to the previously assigned technician to let him or her know that the request is no longer available to work on.
RequestReassignedManagerPrefixSMS	This SMS is sent when the manager responsible for processing the approval of a request is changed. This message is sent to the previously assigned manager.
RequestReassignedManagerToTechPrefixSMS	The message included in an SMS when a request moves from a manager approval state to the newly assigned technician.
RequestReassignPrefixSMS	When a request is reassigned, this SMS is sent with the request details to the previously assigned user.
RequestReassignToPrefixSMS	When a request is reassigned, this SMS is sent with the request details to the newly assigned user.
RequestStatusChangedPrefixSMS	The content of an SMS sent when the status of a request is moved from **Pending-No Contract** to the default open state of the assigned workflow. This message is sent to the assigned technician.

➔ To customize an SMS message template:

1. Go to **Setup > Email > Templates**.
2. Select the **SMS Templates** filter.



3. Select the SMS template you want to edit.
   - The HTML editor opens.

Icon	Description
Insert Parameter	The list options provides specific details to be included in the SMS message.
Restore Defaults	Restores the system default SMS message.

4. Modify the message as required.
   - As part of the customization, you can use the existing parameters included in the **Insert Parameter** list. Parameters ensure the customized message uses the correct format for the included information.
5. Click **Save**.

SMS Parameters

The following are parameters for new and updated request templates:

Parameter	Source
Process	Shows if the request is a service request, incident, problem, or change request.
New Status	Shows the workflow state assigned to the request.
Request Id	Shows the system-generated request identification number.
Request URL	Provides a direct link to the request.

The following are parameters for the group templates:

Parameter	Source
Group #	Shows the Group ID number.
Group URL	Provides a direct link to the request group.
Group Type	Identifies the group as service request, incident, problem, or change request.

The following are parameters for the invoice template:

Parameter	Source
Invoice #	Shows the invoice number.
Invoice URL	Provides a direct link to the invoice.

The following are parameters for the item status change templates:

Parameter	Source
Item Number	Shows the item number as recorded in the **Item Information** tab.
Status	Shows the status of the item as recorded in the **Item Information** tab.

The following is the parameter for the new attachment template:

Parameter	Source
File Name	Allows the file name of the newly received attachment to be included in the email to the user.

The following are parameters for the planned outage templates:

Parameter	Source
Outage End Date	Drawn from the **End Date** field in the **Configuration > Outages** screen of the User Portal.
Outage Items	Shows the items associated with the planned outage in the **Configuration > Outages** screen of the User Portal.
Outage Start Date	Drawn from the **Start Date** field in the **Configuration > Outages** screen of the User Portal.

The following are parameters for the escalation templates:

Parameter	Source
Current	Shows the name of the newly assigned technician.

Parameter	Source
Technician	
Previous Technician	Shows the name of the technician who was previously assigned the request.
Process	Shows the ITIL Process of the request; for example, change management or incident management.
Request ID	Shows the request identification number.

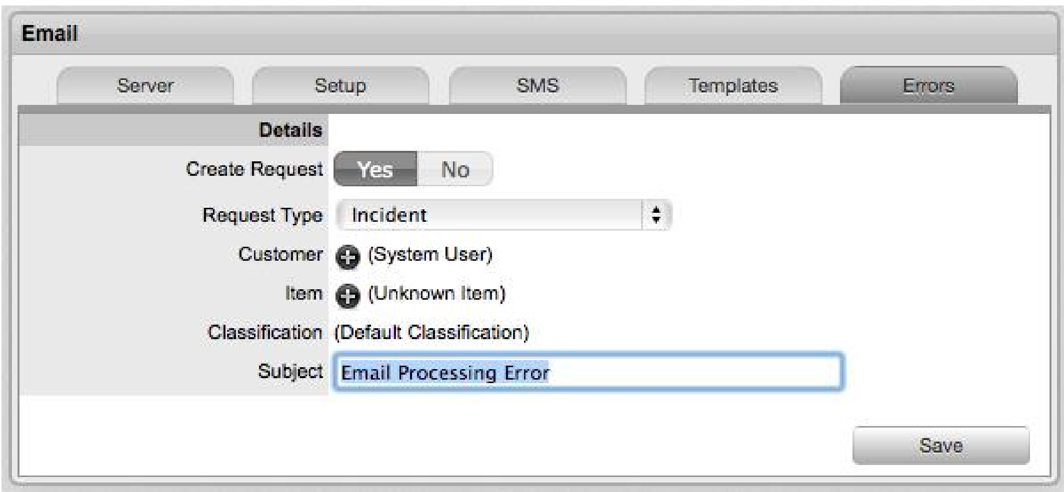
Errors

Use the **Errors** tab to configure how the Service Desk can handle email messages that are not successfully delivered to customers.

When the system sends an email to a customer (for example, to provide an update on incident status), and the email bounces back as undeliverable, managers and supervisors can create a request for the Service Desk to take appropriate action (for example, update the customer's record with the correct address) based on settings you define within this tab. When you enable this feature, managers and supervisors can quickly generate a request in the User Portal by clicking the **Create Request** button from a failed email log entry at **Reports > Email**.

→ To enable request creation for email delivery errors:

1. Go to **Setup > Email > Errors**.
2. Set the **Create Request** option to **Yes**.



3. Complete the following fields:

Request Details	Description
Request Type	The type of request the system should create for the Service Desk to address the email delivery error.
Customer	The user who the system should assign the generated requests to. If you select **(System User)**, the system places all generated requests in the assignment queue.
Item	The item the system should assign to the generated requests.
Classification	The item classification the system should assign to the generated requests.
Subject	The subject for the generated requests.

4. Click **Save**.

Custom Fields

The **Custom Fields** tab allows you to customize screens in the system to meet the specific requirements of your organization by creating additional fields for different parts of the application.

You can customize these fields in the following ways:

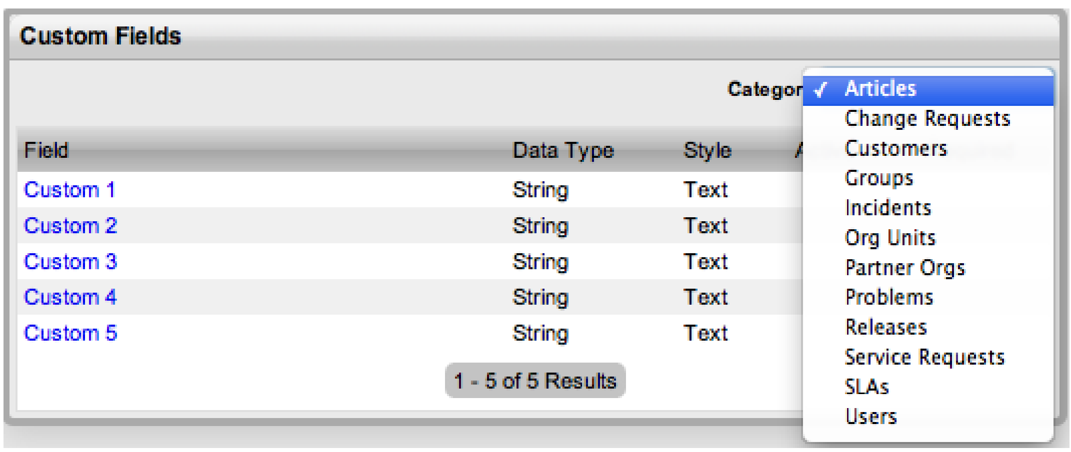
- Setting the data type
- Defining the style
- Defining if the field is required or includes a description
- Determining whether the customer can view or edit the field (for incident, change, and service request custom fields only)

NOTE A maximum of five custom fields is allowed for each option.

Enabling a Custom Field

➔ To enable a custom field:

1. Go to **Setup > Custom Fields**.
2. From the **Category** list, select the area of the application that you want to add the custom field to.
   - The list shown includes all screens where you can add custom fields.

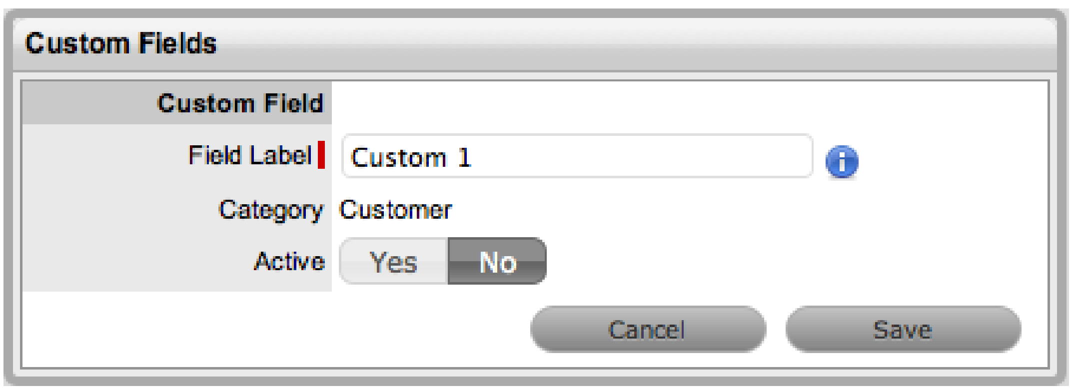


Custom Fields	Custom Field Locations
Articles	Additional field for articles in the knowledge base.
Change Requests*	Additional field for a change request.
Customers	Additional field for customer information.
Groups	Additional field for service request, incident, problem, and change groups.
Incidents	Additional field for incident information.
Invoices	Additional field for invoices. (Option available when **Enable Invoices** is enabled in **Setup > Billing** .)

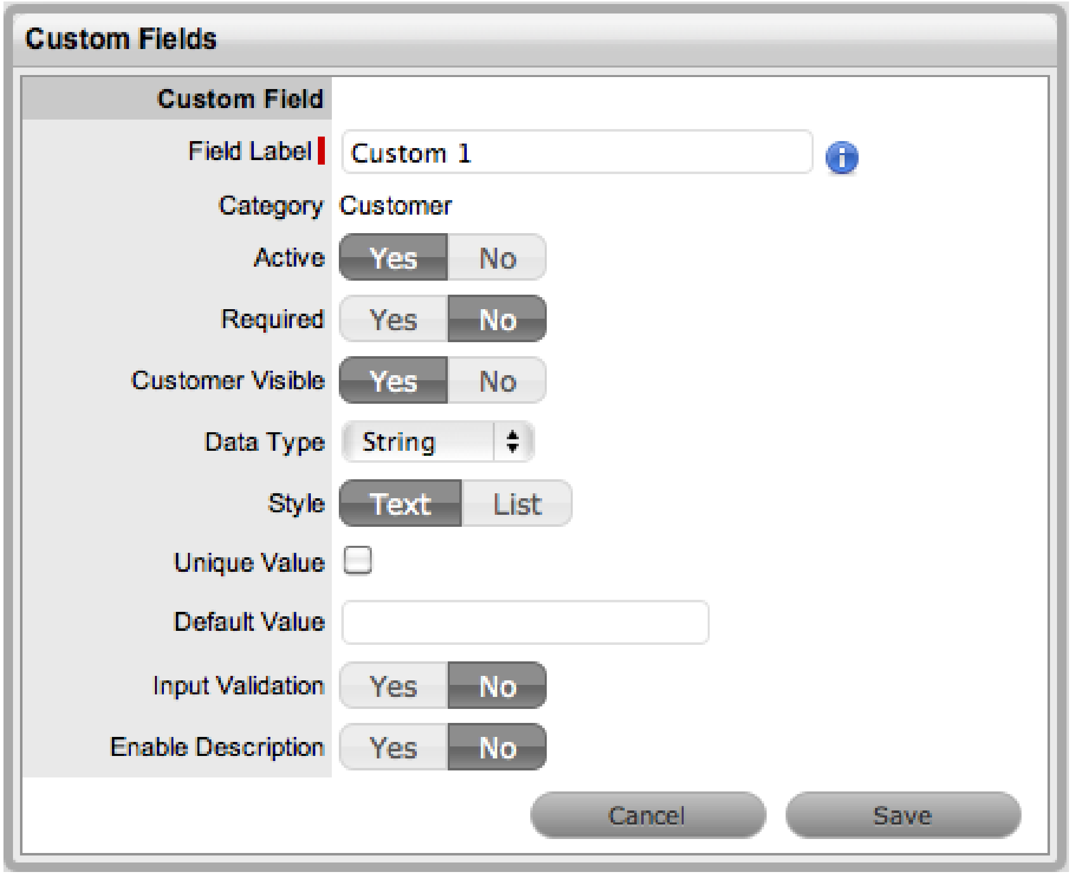
Custom Fields	Custom Field Locations
Org Units	Additional field for an organizational unit.
Partner Orgs	Additional field for partner organization.
LDAP/ADS Accounts	You can use customized LDAP/ADS fields to map to a directory server when importing user account details. See Authentication for more information.
Problems*	Additional field for problem details.
Releases*	Additional field for release management details.
Service Requests*	Additional field for service request information.
SLAs	Additional field for the **Service Level Agreement Information** screen.
Users	Additional field for the **Users Information** screen.
Purchase	Additional field for purchase orders. (Option available when **Enable Purchase Orders** is enabled in **Setup > Billing**.)

** Problems, Change Requests, Releases, and Service Requests do not apply to the Help Desk edition of LiveTime.*

3. Select the custom field you want to define.
    - An editable window opens.



4. From the **Active** field, select **Yes**.
    - When activated, a list of options is shown.



Option	Description
Field Label	Enter a name for the custom field. (This field is mandatory.) NOTE The label you enter within this field is applied to the English interface. For other languages, configure this label in the **Setup > Localization > Content** tab.
Active	Defines the custom field visibility.
Required	Defines if the field is mandatory when displayed.
Data Type	The format required for the field. Select from the following data types: • String (text or list) • Number - Custom field that requires a number • Boolean (radio buttons) • Date - Custom field that requires a value in a date format • Currency - A currency can be defined for the field • Hyperlink - A URL can be included in the field
Style	Based on the selected data type, the way the data will be displayed. • String custom field - Either an open text field or a list • Boolean custom field - Uses radio buttons to define Yes/No or True/False • Number custom field - Either numerical or rating
Unique	When enabled, the system prevents the duplication of data within the customized field.

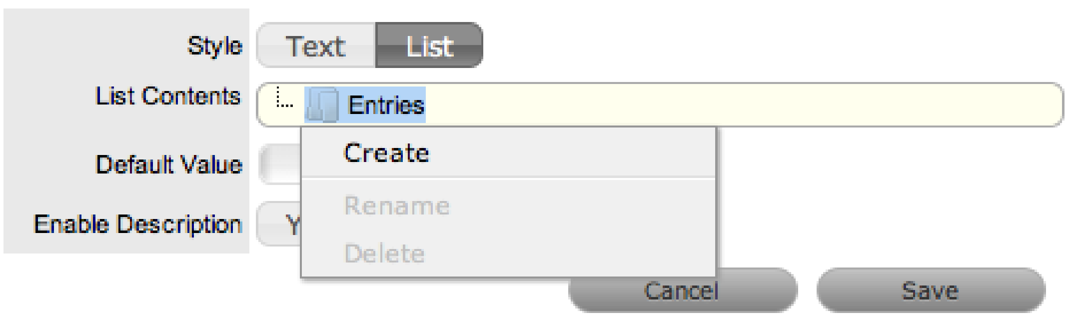
Option	Description
Value	
Input Validation	When enabled, the Input Mask and User Mask can be defined. **Input Mask**: A regular expression to use for data validation of values entered by a user (for example, ZIP/post code or telephone number) **User Mask**: A user-friendly representation of the Input Mask that customers can understand if it appears in a validation error message.
Enable Description	When enabled, a **Description** field is shown allowing you to enter details of what information the custom field is expected to capture. These details are accessible next to the custom field on the relevant screen.

Defining Lists

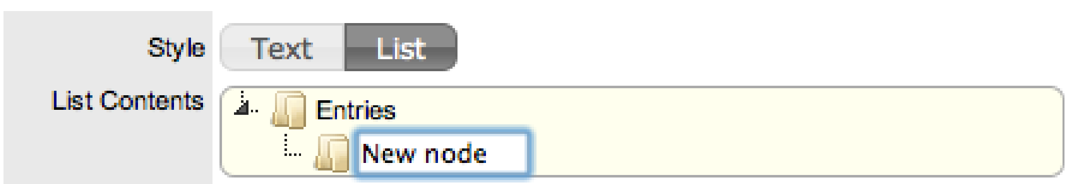
When you select the **Data Type: String** and **Style: List** options, the **List Contents** field is shown, which provides the facility to create a drop down list for options within the custom field.

➔ To create a new list entry within the List Contents field:

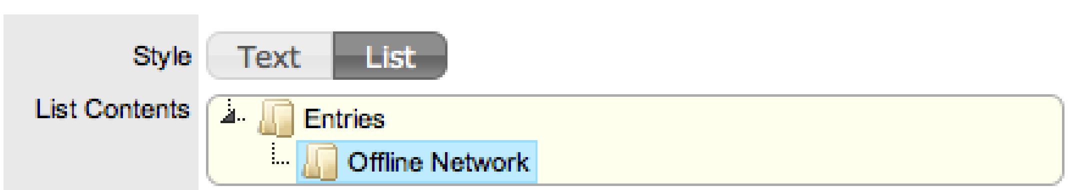
1. Right-click the **Entries** link.



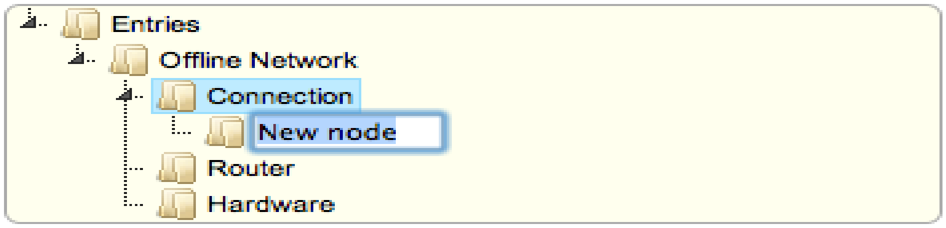
2. Select **Create** from the menu.A **New node** link is added.



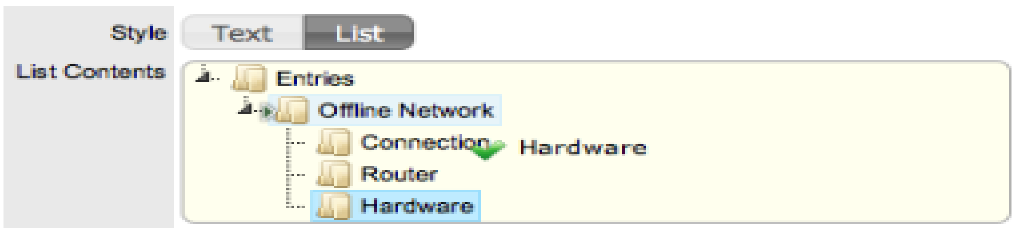
3. Enter the name of the list entry.
4. Click outside the field to save the entry.



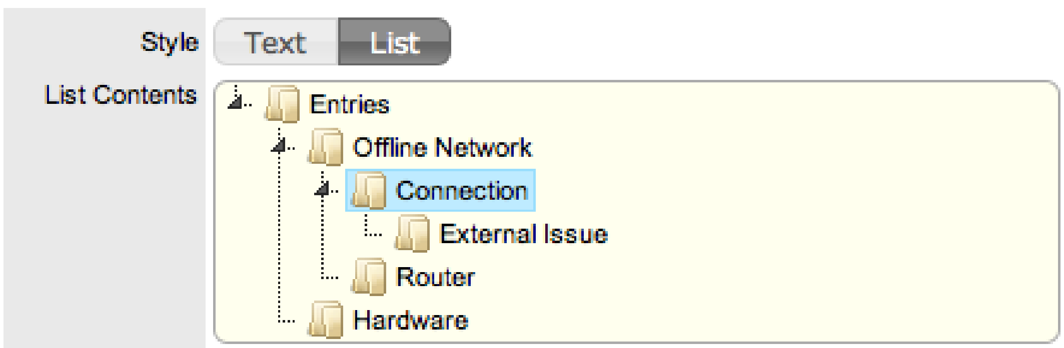
5. Repeat this process until you have added all desired list entries.
   - To create a nested list, right-click on the relevant list entry and repeat the above process.



6. To move an existing entry to a new position, select the entry, then drag and drop the entry into its new location.



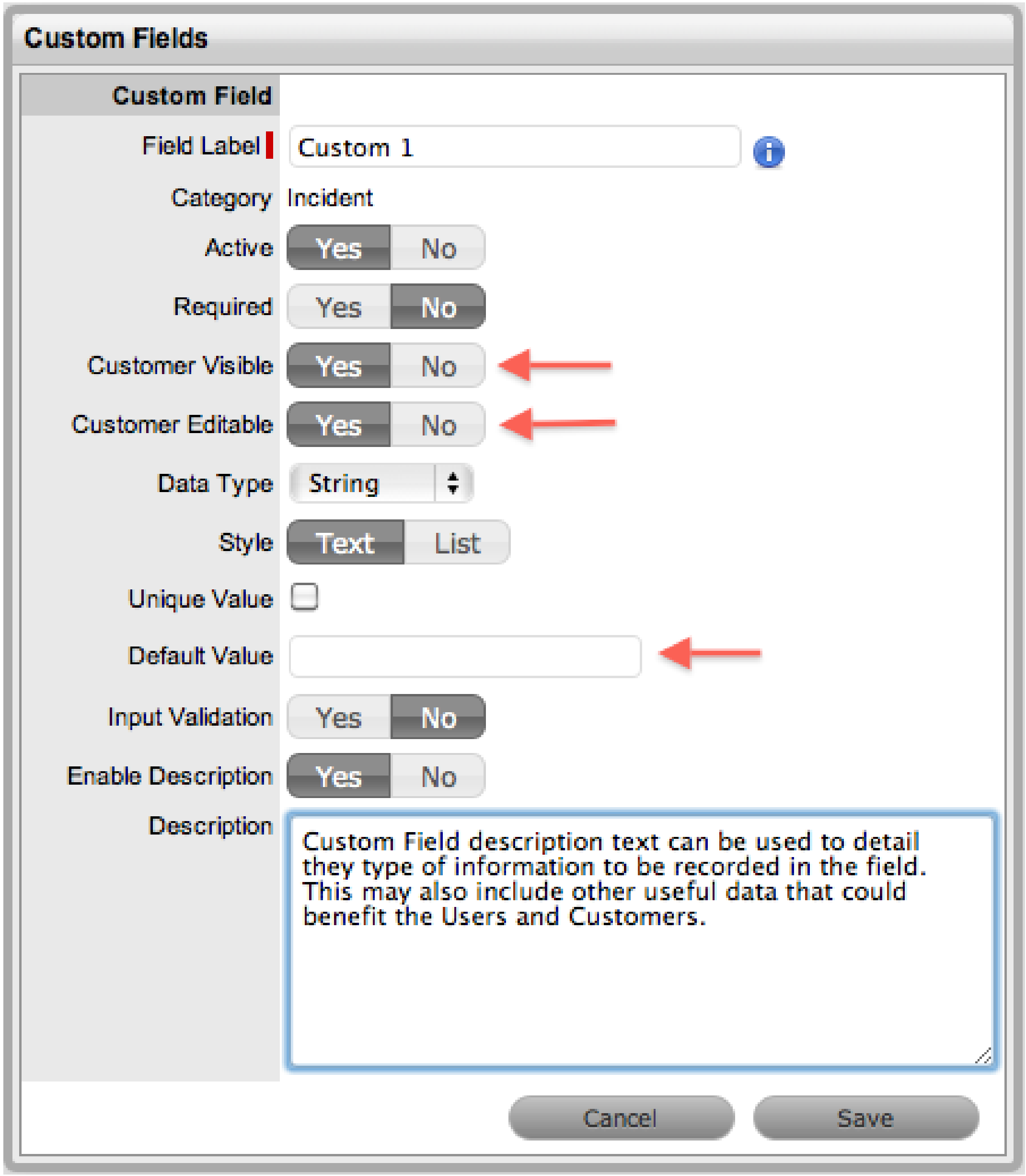
7. When all the relevant details have been defined for the custom field, click **Save**.



Custom Fields for Incidents, Change Requests, and Service Requests

If you are defining a custom field for incidents, change requests, or service requests, additional options are available. These include the following:

Option	Description
Customer Visible	If enabled, the custom field is visible in the Customer Portal; otherwise it can only be viewed in the User Portal.
Customer Editable	Allows the customer to edit the content within this field.
Default Value	The custom field will automatically be populated with the value entered here when a request is created. This value can be edited within the request screen, if required.



NOTE If **Customer Visible** is set to **No** for a required field, you must define a **Default Value**. These settings enable the customer to save a new request without seeing the relevant field.

LDAP/ADS Accounts Custom Fields

You can use the LDAP/ADS custom fields to define specific customer and user fields configured within LDAP/ADS. These custom fields are completed when users and customers are entered manually or imported using a CSV file.

If Mixed Mode LDAP is applied, the same set of custom fields are used. These fields are listed with the label **Mixed Mode** within the **Custom Field Category** filter list.

Privileges Tab

The **Privileges** tab contains global setup options that govern the application behavior, customer and user interaction with the system, and system defaults.

As a best practice, privileges are set upon initial configuration of the system; however, you can make changes at a later time if required.

There are five tabs within **Setup > Privileges**:

- User
- Customer
- Requests
- Items
- System

User Privileges

Within the **Setup > Privileges > User** tab, you can configure privileges for technicians and partners by customizing the options within the **Technicians** area of the screen. This customization also includes enabling functionality related to all user work hours and public holidays. You can also adjust defaults for users across the knowledge management and configuration management processes.

Some of the privileges you can customize for technicians include the following:

- Create new customers
- Create new items
- Reassign requests
- Edit other technicians' requests
- Create, edit, publish, and delete knowledge base articles by default

NOTE Privileges assigned to technicians are also applied to partners.

Configuring User Privileges

➔ To configure user privileges:

1. Go to **Setup > Privileges > User**.
2. Click **Yes** to enable or **No** to disable a privilege option.

User Privileges	
Technicians	
Create Customers	Allows technicians to create customer accounts.
View All Requests	Allows technicians to view all requests assigned to their team for the processes they are allocated. It also allows technicians to edit requests that are assigned to fellow team members, as it provides a **My Team Requests** filter in the list view.
Reassign Requests	Allows technicians to reassign requests to another team and technician when the **View All Requests** option is enabled.
Duplicate Requests	Allows technicians to copy requests to fast track request creation. Supervisors have this privilege by default.
Manual Request Time	Disables the timer that automatically monitors and records the time when a request is in edit mode. NOTE This option is not available when **Enable Contracts** is enabled in the **Setup > Billing** tab, as users must manually add time worked on a request to notes.
Note Time Unit	Defines the unit (in minutes) to record the time taken for entering notes in the system. Default value is **1**. If you use a unit other than the default value of 1 minute, automatic recording of time is disabled and users can manually specify the amount of time they spend entering notes, in the unit you specify here.
Non-zero Note Time	Prevents technicians from entering a note time of zero when adding notes to requests.
Update	Enables technicians to add notes to requests that are assigned a workflow exit

User Privileges	
Closed Requests	state.
Search All Items	Within the **Items** tab of a request, the **All Items** option is shown in the **Find Item** box for technicians, if this option is enabled.
Include Globals Default	By enabling this option, the **Include Global* Options** is selected by default in the **Find Item** field when a user is creating a request.
Supported Orgs Default	Determines whether technicians see default search results within requests based on the organizational units they support.
Subject Required	Determines whether completing the subject field is mandatory for users during the request creation process.
Technician Alerts	Allows technicians to create system alerts.
Define Work Hours	Allows the technician's availability to be configured within the **Users > Schedule** tab. This scheduling ensures that requests are only forwarded to the user during the defined work hours, unless there are no other users available. If this option is enabled, work hours must be defined for each user, otherwise the built-in technician assignment logic is ignored and all new requests are assigned to the team lead.
Available Threshold	Interval prior to a technicians work hours starting that they should start to be considered for requests to be assigned to them
Assignment Control	When enabled, provides the **Assignment** option within the **User Information** screen. This option allows a supervisor or administrator to turn request assignment off for a user who is available in the system.
Scheduled Vacations	Allows leave to be scheduled for users within the **Users > Schedule** tab. This scheduling allows vacations to be planned and automatically detected by the system when the user commences leave. The system does not assign users new requests when they are on vacation.
Vacation Reassign	This option becomes available when the **Scheduled Vacations** option is enabled. When enabled, this option ensures active requests of the user commencing leave are automatically re-assigned to available technicians within the user's team.
Observe Public Holidays	Ensures the system gives consideration to public holidays when calculating SLA times, escalations, and breaches. NOTE When enabled, the **Public Holidays** sub-menu option is available within the **Setup > Localization > Holidays** tab.
Edit Customer Partner	Allows customers to be assigned to partners within the **Customer Information** tab.
Create Outage	Enables a technician to create outages for items.
Force Analysis	When enabled, the system proposes relevant solutions within the **Analysis** tab during the request creation process.
Force Classification	If enabled, when a technician creates a request, the system disregards the default classification from the request's item category and requires the technician to

User Privileges	
Selection	explicitly select a classification for the request.
Force Closure Code Selection	If enabled, technicians must select a closure code when closing a request.
Workload Measure	Determines the workload the system should consider during request assignment: • **All** - All requests assigned to a user (except those in an exit state) should be considered • **Active** - Only requests in an active state should be considered
Technician Leave Visible	If enabled, allows technicians to view each other's vacation on the **Home > Calendar** screen of the User Portal, provided they are members of the same team.
Show Merge	If enabled, the **Merge** button becomes available to technicians in request lists, enabling them to combine duplicate requests into one entry.
Configuration	
Roles	Sets the default privileges for the user role's ability to create, edit, and delete item information in the CMDB.
Knowledge	
Roles	Configures the default knowledge base authoring permissions for each user role.

3. Click **Save**.

Customer Privileges

Customer privileges specify the options that are available to customers within the Customer Portal.

Enabling Customer Privileges

➔ To enable customer privileges:

1. Go to **Setup > Privileges > Customer**.
2. Select **Yes** to enable or **No** to disable a privilege option.

Customer Privileges	Description
Customers	
Create Account	Allows customers to create their own account from the login page.
Default Web Access	Define the default setting for web access on newly created customer accounts.
Incident	Define if customers can view, create, or edit incidents in the Customer Portal.
Change Request	Define if customers can view, create, or edit change requests in the Customer Portal.
Service Request	Define if customers can view, create, or edit service requests in the Customer Portal.
Service Incidents	If the option to create incidents in the Customer Portal is enabled, this functionality can be refined by defining if incidents can be logged against service items. If this option is disabled, services are not included in the **Category** list during the incident creation process. Also, if a customer attempts to log incidents against a service through email by including the item number in the subject line, and this option is disabled, the system sends an error message. You can customize the **NoServiceIncidentContent** error message using the **Error Message Template** filter in the **Setup > Email > Templates** tab.
Default Request Type	Defines the request type that should be selected by default when a customer creates a request in the Customer Portal. If you choose **[Force Customer Selection]**, the customer must explicitly select a request type.
Edit Shared Requests	When enabled, customers who can view shared requests are also permitted to edit these requests (for example, they can add notes or upload attachments).
Items	Define if customers can view, create, or edit their own item details within the Customer Portal.
Show Only Active Items	Allows customers to only view items that are marked as Active in the system.
Show Subject Field	Shows the **Subject** field above the **Description** field in the Customer Portal.
Subject Required	(This option is visible if **Show Subject Field** is set to **Yes**.) Determines if customers are required to specify a subject for requests they create in the Customer Portal.

Customer Privileges	Description
Show Priority	Enables customers to view and set the priority of their requests. Alternatively, the urgency can be shown, which will be associated with the item criticality to set the priority. Select **Off** to disable this functionality completely.
Item ID search	Allows customers to search by an item's ID when creating a new request.
Force Classification	If enabled, when a customer creates a request, the system disregards the default classification from the request's item category and requires the customer to explicitly select a classification for the request.
Force Search	When enabled, proposes solutions for incidents based on the item type, classification, and description provided.
Create Forum Topics	Allows customers to create a new forum topic through the Customer Portal.
Display Email Language	When enabled, allows customers to specify a preferred language within their profile settings in the Customer Portal.
Display Room	Shows the room for an item when creating a request.
View Technician	Allows customers to view the details of the technician assigned to their request in the Customer Portal.
Show All Services	Enables the **Service Catalog** link in the **Services** tab of the Customer Portal. This link allows customers to view and log requests against all services offered by the support organization for example, request access to a service). Services listed here are not assigned an exit item lifecycle state.
Show Vendor Performance	Allows customers to see third-party vendors' performance against their defined service level targets when they deliver services under an underpinning contract.
Show Service Targets	Displays the response, restoration, and resolution targets for the SLA assigned to the request in the Customer Portal.
Show Notify Others	Displays the 'Notify Others' field in the request editor in the Customer Portal.
Enable RSS	When enabled, provides the **RSS Requests** menu option in the Customer Portal.
Enable Titles	When enabled, shows the **Titles** tab within **Setup > Localization**, which can be customized. This list is then shown in the **Title** field in the **User Information** and **Customer Information** screen. See Titles for more information.
Enable Item Shadow	When enabled, if requests are logged against an item in the Customer Portal, technicians can amend the item assigned to the request without the customer seeing the change.
Customer Defined Contact	When enabled, this option allows customers to define their preferred method of contact in their profile or **My Account** screen. Their preference applies when a team has the **Customer Notification** option set to **Customer Defined**.
Record GPS	When enabled, the GPS location of customers when they last logged into the Customer Portal is recorded within their **Customer Information** screen.

Customer Privileges	Description
Mandatory Org. Unit Code	When enabled, the **Org. Unit Code** field must be completed during the creation of an organizational unit or partner organization.
Default Date Style	Sets the default date format to be used across the application.
Default Timezone	Sets the default time zone across the application. This setting can be overridden on a per-user basis if users set their time zone for their login account.
Customers' Default Landing Page	Sets the default landing page of the customer portal for all customers (default is 'Home')
LDAP/AD (visible when an LDAP/AD connection is configured)	
Include Customers	Set to **Yes** if the system should import customer details when synchronized with an LDAP/AD server.
Mixed Mode	Allows customer accounts to be created directly through the system, as well as being imported through LDAP/AD.
Show Domain List	(This option is visible if multiple domains are configured in the system.) Determines if the list of available domains is published to the login page. If this is set to 'no', all users authenticating via a directory server must use their UPN, or fully qualified login name, which includes the domain data.
Default Domain	(This option is visible if multiple domains are configured in the system.) Determines which domain is selected for customers by default on the login page.
View Shared Requests (request visibility options for the Customer Portal)	
By Ownership	Allows requests to be viewed by all owners of the item, when logged against a shared item. (See the table below for toggle option outcomes.)
By Org Unit	(This option is available when the **By Ownership** option is enabled.) Allows requests to be viewed by all customers of an organizational unit assigned to the item, when logged against a shared item.
Include Global Items	(This option is available when the **By Ownership** option is enabled.) Allows requests to be viewed by all customers of an organizational unit assigned to the item, when logged against a global item.
Close Shared Requests	Allows customers to close any requests associated with items they own, even if they did not submit the request.

3. Click **Save**.

Setting the View Shared Requests Options

When setting the visibility of requests logged against shared items, refer to the table below to ensure the correct visibility option is configured for your organizational requirements:

By Ownership	By Org Unit	Shared Request Visibility
No		Only visible to the customer who logged the request.
Limited	No	Visible to the customer who logged the request and other owners in the same organizational unit assigned to the item.
Limited	Limited	Visible to the customer who logged the request and members of the organizational unit he or she belongs to, if the organizational unit is also assigned to the item.
Limited	Yes	Visible to owners within all organizational units assigned to the item.
Yes	No	Visible to the customer who logged the request and other assigned owners.
Yes	Limited	Visible to the customer who logged the request, other members of the organizational unit the customer logging the request belongs to, and other owners assigned to the item .
Yes	Yes	Visible to everyone who shares the item assigned to the request.

Request Privileges

The **Setup > Privileges > Requests** tab allows you to control the functionality available for requests and to set default requirements. These privileges are applied throughout the system.

Enabling Request Privileges

→ To enable request privileges:

1. Go to **Setup > Privileges > Requests**.
2. Select **Yes** to enable or **No** to disable a privilege option.

Requests Tab Options	
Requests	
Enable Escalation Control	Allows escalation to be enabled or disabled on a per-request basis. This option is only available to supervisors.
Queues	Allows teams to use a holding bay for requests that are received through email or the Customer Portal. The queues can be enabled within the **Team Information** screen, on a per-team basis.
Control Deployments via RFC	When enabled, change requests are automatically created from newly entered deployments, and require approval before work commences on the deployment.
Control CMS via RFC	When enabled, changes that technicians make within the CMDB generate a change request that requires approval before the change is implemented.
Customer CMS via RFC	When enabled, customers creating items in the Customer Portal generate a change request that requires approval before the change is implemented in the CMDB.
Email AMIE RFCs	This option is available when **Control CMS via RFC** is set to **Yes**. Select who should receive system-generated emails notifying of change requests that are created as a result of an AMIE synchronization: • **Per Team** - The system sends emails according to the notification settings of the team assigned to the change request. • **None** - The system does not send emails. • **Technician** - Only the technician assigned to the change request receives the email. • **Layer** - Only users in the change request's current escalation layer receive the email. • **All Layers** - Users in all escalation layers associated with the change request receive the email. • **Team** - All members of the team assigned to the change request receive the email.
Minimum Solution Relevance	Defines the minimum degree of relevancy for content included in the **Description** field of a request when the system automatically searches the knowledge base to propose solutions.
Enable Quick Calls	Enables the functionality that allows a supervisor to profile requests using quick call templates. Other users can also use these templates when creating new requests.

Requests Tab Options	
Request Priority (Derived/Selected)	Select **Derived** to allow the system to derive the priority based on urgency and impact of the request. Select **Selected** to manually apply the priority from a list of options.
Default Priority	This option is available when the **Request Priority** is set to **Selected**. The selection made here is automatically applied as the default priority for newly created requests.
Handshaking	Enables notifications to be sent to customers using the **Propose** button within a request, stating the request will be closed if no reply is received from them within a set number of days. • The **Solution** button within an open request is not accessible when the **Handshaking** option is enabled. • When enabled, if problems or changes are closed, any related requests are moved to the **Pending - Approval** status, not to the default **Closed** status.
Handshaking Close Action	Sets the system default number of days to lapse before a request closes if the customer does not respond to the handshake email notification. This setting can be adjusted on a per organizational unit basis. NOTE To allow customers to re-open a request using the link in the handshake email, the web server must be using Port 80.
Approval Reminder	To automatically send managers reminder emails regarding requests requiring their approval, set this option to **Yes**. The content of the reminder email is drawn from the **ApproveChange** or **ApproveServiceRequest** template. These templates are configured within the **Setup > Email > Templates** tab.
Approval Reminder Action	When **Approval Reminder** is set to **Yes**, define the number of days to lapse before the system sends a reminder.
Default Notes Visibility	Sets the system default visibility of notes when added to requests. If you expect that the majority of notes will be emailed to customers, select **Public**.
Private Note Response	Allows private notes to be considered triggers for the SLA response timer to have been met. The use of this option implies that customers are notified outside of the service desk when their request has been 'responded' to.
Allow Unknown	When set to **No** and a user opens a request that is assigned the **Unknown Service** item, the user is prompted to update the item before saving the request.
Archive Requests	When enabled, the number of days a request is closed before being removed from the List View and archived. Requests that are archived have attachments removed and are no longer included in the full text index for searching. Archived requests are still accessible for reporting purposes and attribute-based searches.
Purge Requests	Only available when request archiving is in use. When enabled, this defines the number of years a request is archived before being completely deleted from the system. Requests that are purged will be completely removed from the system and no trace of them will remain. Requests purged using this option can NOT be re-instated.

Requests Tab Options	
Disable All Owners Notification Option	When set to **Yes**, the **All Owners** notification option is disabled in a request's **Summary** tab. Technicians can use the **All Owners** option if they want all customers who share an item to be notified when changes are made to incidents involving the shared item.
Show Hidden Attachments	When enabled, attachments associated with hidden attachment types are shown by default in a request's **Attachments** tab. Users can hide these attachments by clearing the **Show Hidden Attachments** checkbox within the request.
Show Item Attachments	When enabled, attachments associated with items and types are shown in the customer portal during the request creation process to facilitate the provision of forms for users to complete. Attachments on Items and Types need to be marked 'Public' in order for them to be published in this way.
Default Note View	Allows the administrator to dictate if the default view of notes will show the abbreviated form (requiring user to click the note ID to view the full content), or if the list of notes will show the full note content, increasing the scrolling required, but decreasing the need to enter note records to see the content).
Auto Edit Mode	When enabledif a user can edit a request that they view, the request will automatically open in edit mode (saving the technician from having to click edit). This does have the consequence of the request being in edit mode and responsive to changes.
Default SLA	Used as the default SLA when a new request is created without an SLA defined for the item, customer, or organizational unit.
Default Incident Team* (required if using AMIE)	Sets the default incident team, which is used for AMIE integration and also set as a default support team for item types.
Default Problem Team* (required if using AMIE)	Sets the default problem team, which is used for AMIE integration and also set as a default support team for item types.
Default Change Team* (required if using AMIE)	Sets the default change team, which is used for AMIE integration and also set as a default support team for item types.
Default Request Team* (required if using AMIE)	Sets the default request team, which is used for AMIE integration and also set as a default support team for item types.
Default Search Status	Sets the default behavior for searching requests: • **All** - The system defaults to search all requests, both active and inactive • **Active** - The system default to search only active requests • **Inactive** - The system default to search only inactive requests Users can override this default behavior by selecting a specific request status when performing a search.
Review Options	
Review SLA	When enabled, the **Review Date** field in the **Service Level Information** screen is shown. If you enable this option, you should also set the default number of days between reviewing SLAs and the number of days before the review date for an alert reminder.

Requests Tab Options	
Review RFC	When enabled, the **Review Date** field in the **RFC Information** tab is shown. If you enable this option, you should also set the default number of days between reviewing RFCs and the number of days before the review date for an alert reminder.
KBA (Knowledge Base Article) Options	
Control KBA via Request	When enabled, a request is generated when the KBA is created, deleted, or amended, and only a user with publishing privileges can publish to the KB.
Request Type	Specify the type of request to generate when new or amended KB content is moved to a **Pending Publication** state. (The options available are based on the ownership of change and service request licenses.)
Default SLA	Set the default SLA to use for when requests are logged regarding updates in the knowledge base. Applying an SLA here determines which workflow and team receives the requests for approval, as with any other request logged in the system.

** Should be set after teams have been configured.*

3. Click **Save**.

Item Privileges

The **Setup > Privileges > Items** tab allows you to control the functionality available for items, as well as set the visibility of details for current and planned outages when items become unavailable.

Configuring Item Privileges

→ To configure item privileges:

1. Go to **Setup > Privileges > Items**.
2. Select **Yes** to enable or **No** to disable a privilege option.

Option	Description
General	
Edit Item Numbers	Allows users to edit the identification number of an item. NOTE If you import items using AMIE, any edits users make to identification numbers are overwritten upon synchronization.
Display Item Numbers in Relationships	When enabled, items are represented by their item number instead of their item type within relationship maps. (Relationship maps are accessible within the **Relationships** tab of an item.)
Depreciation Interval	The depreciation interval controls how and when the depreciated value of an item is calculated, and if it's stored • **Dynamic** - The system calculates the depreciated value in real-time when an item record is displayed and the value is not persisted • **Monthly** - The system re-calculates the value each month, and stores the value in the database • **Quarterly** - The system re-calculates the value each quarter, and stores the value in the database • **Annually** - The system re-calculates the value each year, and stores the value in the database
Planned Outages	
Current Outages	Determines if the **Outages** section is visible in the Customer Portal.
Planned Outages	Determines if the **Planned Outages** section is visible in the Customer Portal.
Show Affected Items	Allows customers viewing an outage in the Customer Portal to see the items that are affected by the outage.
Show Affected Users	Allows customers viewing an outage in the Customer Portal to see the users that are affected by the outage.
Minimum Criticality	Defines the minimum level of criticality required for items to be listed in the outages sections of the Customer Portal.
Show Inactive Items	Includes inactive items in the outages sections of the Customer Portal. An inactive item is an item that is currently not in use by your organization.
Show Change Requests	Allows customers viewing an outage in the Customer Portal to see change requests related the outage.
Search Outages	Allows customers to search outages in the Customer Portal using a customer

Option	Description
	email address or item number.
Public Outages	
Current Outages	When enabled, the **View Outages** link is shown on the login screen, allowing anyone to view current outages without logging in to the system.
Planned Outages	When enabled, the **View Planned Outages** link is shown on the login screen, allowing anyone to view planned outages without logging in to the system.
Show Affected Items	Allows anyone viewing a public outage to see the items that are affected by the outage.
Show Affected Users	Allows anyone viewing a public outage to see the users that are affected by the outage.
Minimum Criticality	Defines the minimum level of criticality required for items to be listed in the public outages sections.
Show Inactive Items	Includes inactive items in the public outages sections. An inactive item is an item that is currently not in use by your organization.
Show Change Requests	Allows anyone viewing a public outage to see change requests related the outage.
Search Outages	Allows anyone to search public outages using a customer email address or item number.

3. Click **Save**.

System Privileges

The **Setup > Privileges > System** tab allows you to control the following options:

- Knowledge base
- Surveys
- Forums
- Chat
- Other general settings

Enabling System Privileges

→ To enable system privileges:

1. Go to **Setup > Privileges > System**.
2. Select **Yes** to enable or **No** to disable a privilege option.

System Privileges	Description
General Settings	
Host Address	To be completed with details of the machine hosting the application, if required.
Public Knowledge Base	Allows access to the public knowledge base on the login page.
Public Surveys	Provides access to public surveys on the login page.
Public Alerts	When enabled, alerts whose visibility is set to **Everyone** are made available on the login page.
Passwords	When LDAP or Active Directory authorization is not used, internal authentication is used. To define the password type the system should use, select one of the following: • **Random**: The system generates a random string whenever a password is reset. • **Email**: The user's email address is used as the password. • **Manual**: Allows the user to manually create a password.
Password Questions	Enables the ability to set security questions within the **My Account** screen for customers and users, which are referenced when resetting or resending login credentials.
Show Forgot Password Link	When enabled the login page shows a link to allow users to reset their passwords (when using internal authentication).
Session Timeout	The number of minutes the system waits before terminating idle sessions. NOTE Ensure that the session timeout on the server hosting the application is equal to or greater than the value set here.
Terminate Active Session	When enabled, if users attempt to log in to the system when they already have an active session, they are prompted to end the active session to allow for the new login.
Limit Failed	When enabled, helps prevent brute-force password hacking for a given login. After

System Privileges	Description
Logins	three failed login attempts, the system locks out an account for a set number of minutes (defined by the **Lockout Period** option).
Lockout Period	When **Limit Failed Logins** is enabled, the number of minutes the system locks an account after three failed login attempts. Default value is 10.
Accept All SSL	When enabled, the system accepts any SSL certificate for browser sessions and does not perform verification on the certificate's authenticity. NOTE This setting should be used with caution in production environments. It is best practice to leave this option disabled and configure self-signed SSL certificates on the **Setup > Security > Certificates** tab.
Default Name Pattern	Select the order for names in the system when first and last names are shown together on a screen.
Outbound Web Services	When enabled, request workflow states and item lifecycle states can be assigned a 'listener', which allows these details to be updated in external systems. (Refer to the Absolute Global Support website for details on how to develop a listener.)
OpenID Provider	Enables the system to function as an OpenID provider for user authentication across network resources as the user authentication source. The OpenIDProvider URL should be the following: <PROTOCOL>://<SERVER>/LiveTime/WebObjects/LiveTime.woa/wa/providerLookup The protocol should be set to "http" or "https" and the server details should include where the system is hosted.
Social Authentication	Enables the system to delegate authentication of users and/or customers to one or more external providers (for example, Facebook, Google, or Yahoo). Providers to use as delegates are configured in the **Setup > Security** tab.
Forum Options	
Use Forums	This option enables all forums within the system.
Default Sort Order	Sets the default forum topic sort order to either ascending or descending.
Public Forums	This option enables public forums to be viewed from the login page without requiring a system account.
Chat Options	
Enable Chat	Select **Yes** to activate the chat facility within the application.
Chat Request Assignment	Set to **Technician** if customers should be restricted to chatting only with the technician assigned to their request. Set to **Team** to allow customers to chat with any member of the team assigned to their request.
Default Technician Availability	Sets the default availability for chat status in the **Account Information** screen of newly created technicians.
KBA Review Options	
Review KBA	When enabled, a **Review Date** field is shown on the **KBA Information** screen. If you enable this option, you should also set the default number of days between reviewing KBAs and the number of days before the review date for an alert reminder.

3. Click **Save**.

Rebuilding the System Index

Click the **Re-index** button at the bottom of the **Setup > Privileges > System** tab to rebuild the system index. If the search engine appears to be failing text searches, this process will recreate the index. The indexing rebuild runs as a background process.

The system re-indexes the following content and attachments when you click **Re-index**:

- Knowledge base
- Forums
- All requests
- Items

Customize

The **Setup > Customize** tab allows you to customize the look and feel of the application to match your organization's branding and provide control over the data exposed to customers with they access the customer portal.

Banners Tab

You can replace system banners with the appropriate banners from your own organization:

- All graphics that you use should be in PNG format
- The dimensions of the Application Banner should be 200 x 60 pixels
- The dimensions of all other banners should be 500 x 70 pixels

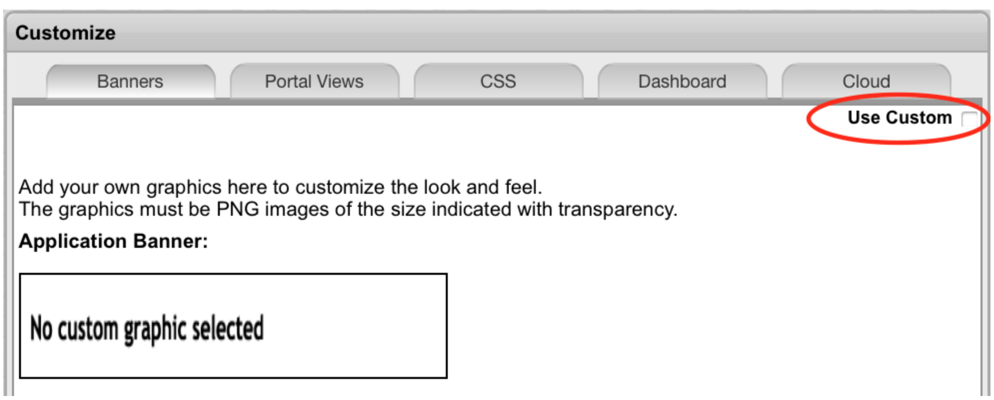
Adding a Customized Banner

➔ To add a customized banner:

1. Go to **Setup > Customize > Banner**.

Banner Type	Description
Application	Visible on the login page of the system.
User	Visible in the User Portal (interface for the Supervisor, Technician, Administrator, Partner, Finance, and Manager roles).
Public/Email	Displayed on public portals for knowledge, outages, surveys, and forums. This banner is also included in emails when the **Include Banner** option in **Setup > Email > Setup** is set to **Yes**.
Customer	Visible in the Customer Portal. NOTE You can upload banners for partner organizations in the **User > Partner Organizations > Banners** tab of the User Portal. This banner overrides the Customer Banner for customers associated with the partner organization.

2. To use custom banners, select the **Use Custom** checkbox at the top of the Banners screen.



3. To upload a new banner, click **New**, then click **Browse**. A window opens allowing you to browse to your image file.

4. Browse to the location of the image and click .

5. Repeat the process until all desired banners have been replaced.
6. Click **Save**.

NOTE When **Enable Purchase Orders** is enabled within the **Setup > Billing** tab, the option to upload a logo for system-generated purchase orders is shown. The graphic should be a PNG file that is 150 x 150 pixels.

Portals Views Tab

You can customize the fields displayed in the customer portal lists for each of:

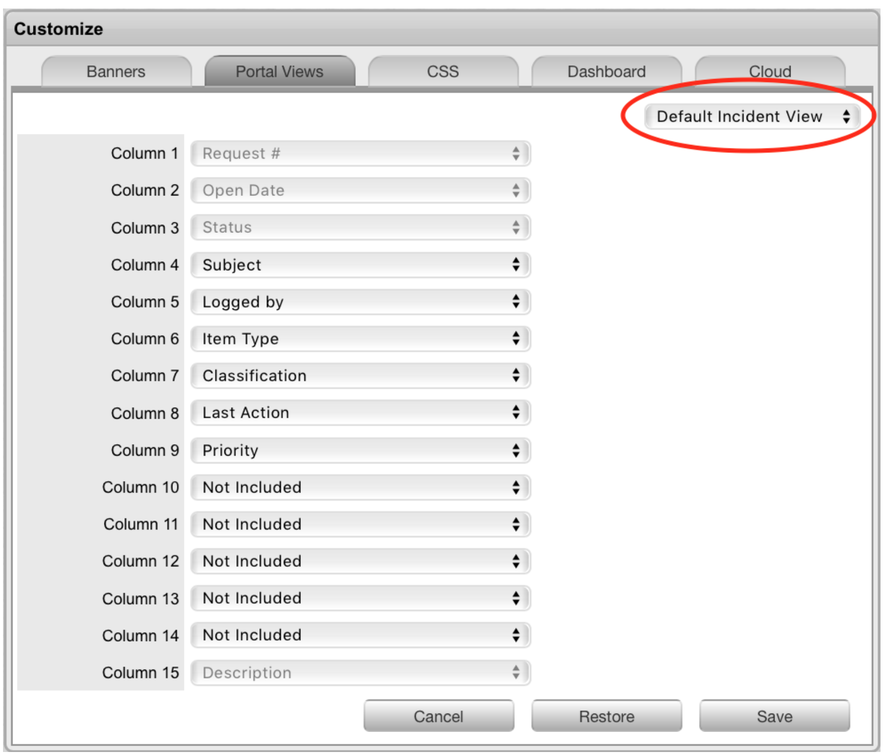
- Incidents (requests)
- Items
- Services

NOTE The full range of fields visible in the technician portal is available for use in the customer portal and the onus is on the administrator to ensure that appropriate request, item or service detail isdisplayed to customers.

Customizing a Portal View

→ To customize the content of a customer portal list:

1. Go to **Setup > Customize > Portal Views**.



2. Select the list you want to customize from the drop down.
3. Select each 'column' you want to modify and set the desired value
4. Click **Save**.

CSS Tab

You can further customize the look and feel of the system using cascading style sheets (CSS) to amend the following elements:

- Colors
- Fonts
- Tabs
- Graphics

See CSS Tab for more information.

Dashboard Tab

Professional Services can be engage to create additional dashboard content. The dashboard tab exists to provide a location for which dashboard additions can be uploaded into LiveTime. Several of the default widgets use this technique and appear as the default entries.

Cloud Tab

Provides an ability for Administrators to customize the endpoints of cloud web services in future should such a need arise.

Cascading Style Sheets (CSS)

Use the **CSS** tab to customize the look and feel of banner backgrounds and tabs within the system. Knowledge of working with cascading style sheets is recommended if you are making changes to these settings.

The options available for configuration include the following:

CSS Editor	
Application Banners	
div.login-panel div.login-header div.login-title-custom	Controls the style of the customized banner on the login page.
div.login-panel div.login-header div.login-title-container	Controls the style of the default banner on the login page.
div.login-panel div.login-header span.login-app-logo	Controls the helpdesk icon graphic on the login page.
#header .customPngBanner	Controls the style of the customized banner within the User Portal.
#header .defaultBanner	Controls the style of the default banner graphic within the User Portal.
#header .customPngBanner	Controls the style of the customized banner within the Customer Portal and public access pages.
#pageHeader .defaultBanner	Controls the style of the default banner within the Customer Portal and public access pages.
Menu Options (User Portal)	
#menu a.active	Controls the highlight on the active (main) menu selection.
submenu a:hover	Controls (in tandem with the span extension) the mouseover (hover) on the submenu tabs.
#submenu a:hover span	Controls (in tandem with the hover default above) the mouseover (hover) on the submenu tabs.
#submenu a.active	Controls the highlight applied to the selected submenu options.

If unwanted changes are made to the system CSS, you can click the **Default** button to revert to the original system CSS.

Dashboard

Use this tab to manage third-party widgets for display within the User Portal. After you add widgets, they become available in the Widget Directory, which users can access by clicking the **Add Widget** button on their **Home > Dashboard** screen.

All widget settings, including which user roles have access to a widget and the category a widget belongs to, are predetermined within the widget file.

→ To upload a third-party widget:

1. Go to **Setup > Customize > Dashboard**.
2. Click **New**.
3. Browse and select a valid widget file.
4. Click .

→ To delete third-party widgets:

1. Go to **Setup > Customize > Dashboard**.
2. Select the checkboxes of the widgets you want to delete.
3. Click **Delete**.

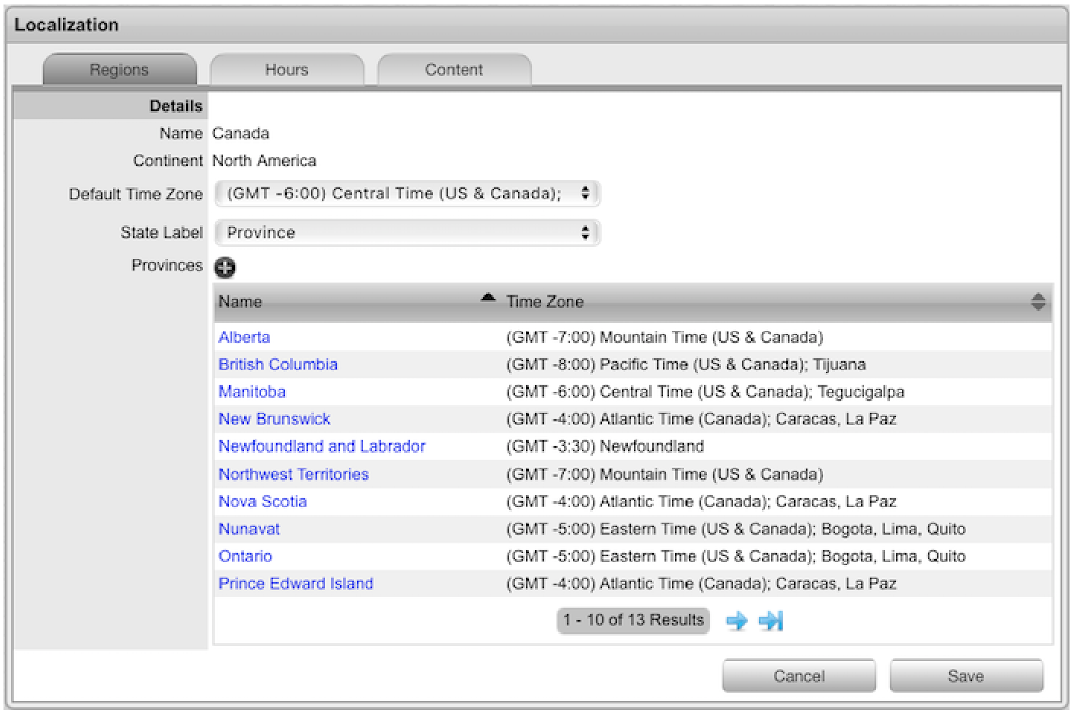
Regions

Use this tab to customize the geographic regions or states that are available within the system for each country. This information is applied to customers and organizational units when their contact details are being defined. When you make a selection from the customer or organizational unit **Country** list within the information screen, the resulting options available in the **States** list are drawn from the regions defined here.

Customizing a Country

➔ To edit a country:

1. Go to **Setup > Localization > Regions**.
2. Select the name of the country you want to edit.

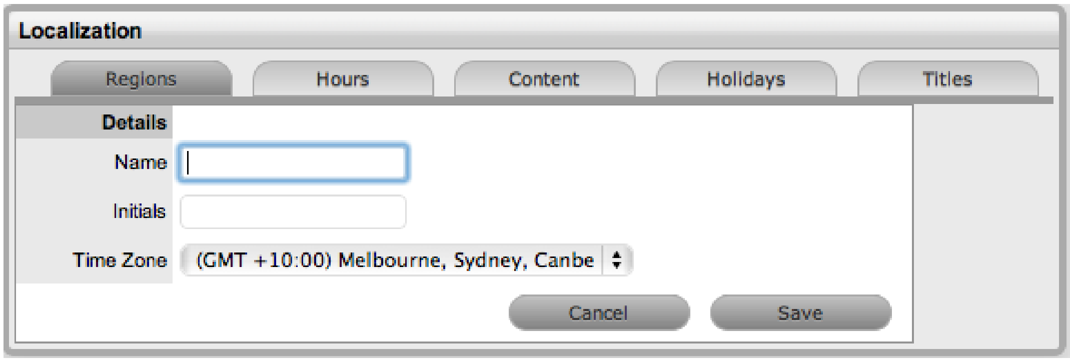


3. Toggle the Default Time Zone to specify the default timezone for that country
4. Toggle the 'State Label' to customize the appearance of the 'State' field label in the editors.

Defining a State for a Country

➔ To define a state or region for a country:

1. Go to **Setup > Localization > Regions**.
2. Select the name of the country that you want to add states to.
3. Click ⊕ to add another state.

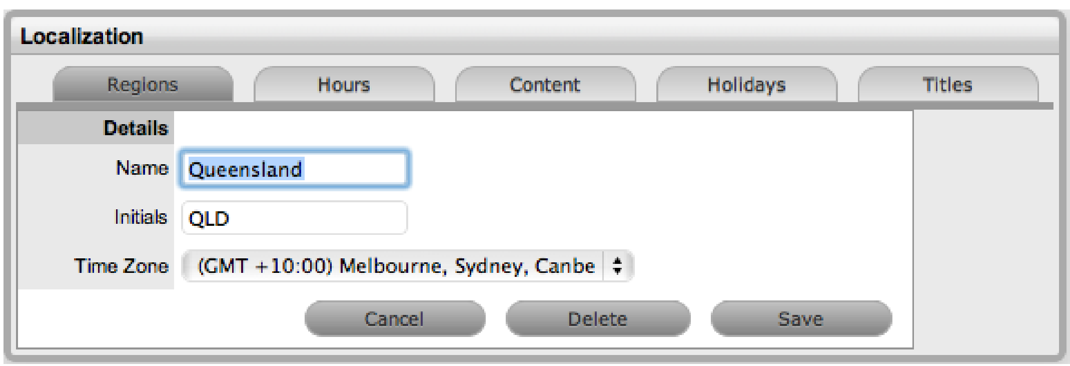


4. Enter the name and representative initials for the state, and select the relevant time zone.
5. Click **Save**.
6. Repeat steps 3 to 5 to add more states.

Editing States

➔ To edit a state or region for a country:

1. Go to **Setup > Localization > Regions**.
2. Select the name of the country whose states you want to edit.
3. Select the name of the state you want to edit.



4. Edit the name, initials, and time zone details as desired.
5. Click **Save**.

Deleting a State

➔ To delete a state or region for a country:

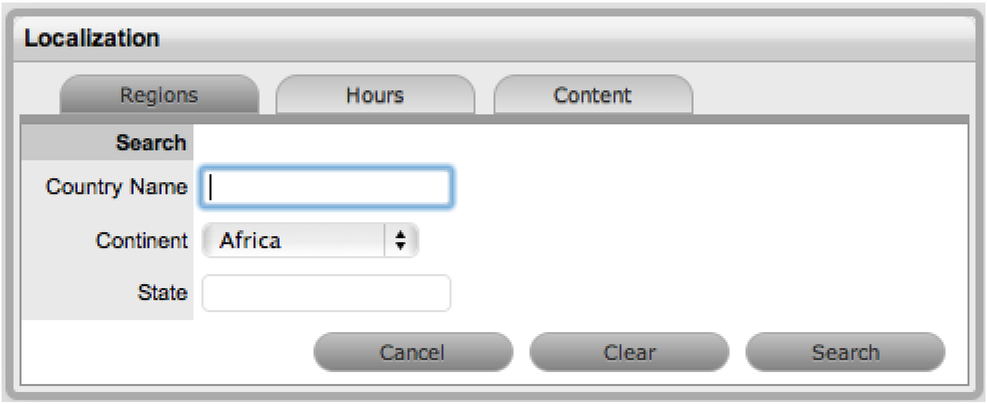
1. Go to **Setup > Localization > Regions**,
2. Select the name of the country whose state you want to delete.
3. Select the name of the state you want to delete.
4. Click **Delete**.
5. Click **Save**.

Searching for Countries and States

To find a country or state within a country, you can use the search feature.

→ To conduct a search:

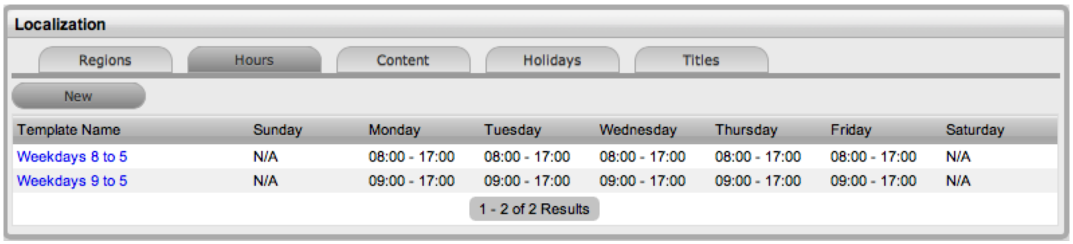
1. Go to **Setup > Localization > Regions**.
2. Click **Search**.



3. Enter the known details.
   - Search options include **Country Name**, **Continent**, and **State** within a country.
4. Click **Search**.

Hours

For the ease of configuring technicians' scheduled hours of work and customizing hours of operation for service level agreements, you can create work hour templates within the **Setup > Localization > Hours** tab. These templates are then made available throughout the application wherever hours of operation are defined.



Creating Work Hour Templates

→ To create a work hour template:

1. Go to **Setup > Localization > Hours**.
2. Click **New**.
   - You can also create a work hour template based on an existing template by selecting a template and clicking **Duplicate**.
3. Enter the **Template Name** (this field is required).
4. Set the hours of operation.
5. Click **Save**.

Editing a Work Hour Template

→ To edit a default or customized work hour template:

1. Go to **Setup > Localization > Hours**.
2. Select the name of the template you want to edit.
3. Edit the hours, as required.
4. Click **Save**.

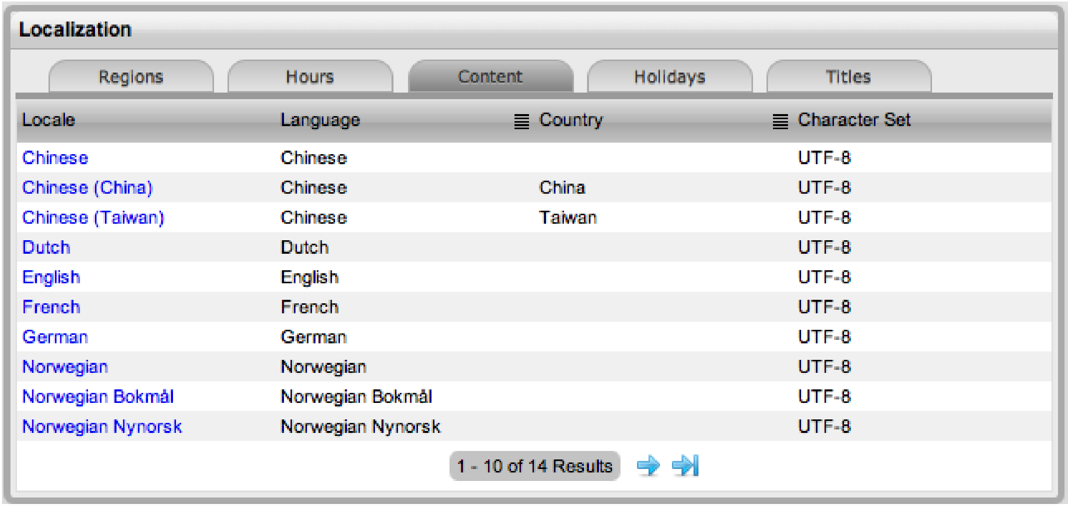
Deleting a Work Hour Template

→ To delete a default or customized work hour template:

1. Go to **Setup > Localization > Hours**.
2. Select the name of the template you want to delete.
3. Click **Delete**.
   - A warning message is shown.
4. Click **OK**.

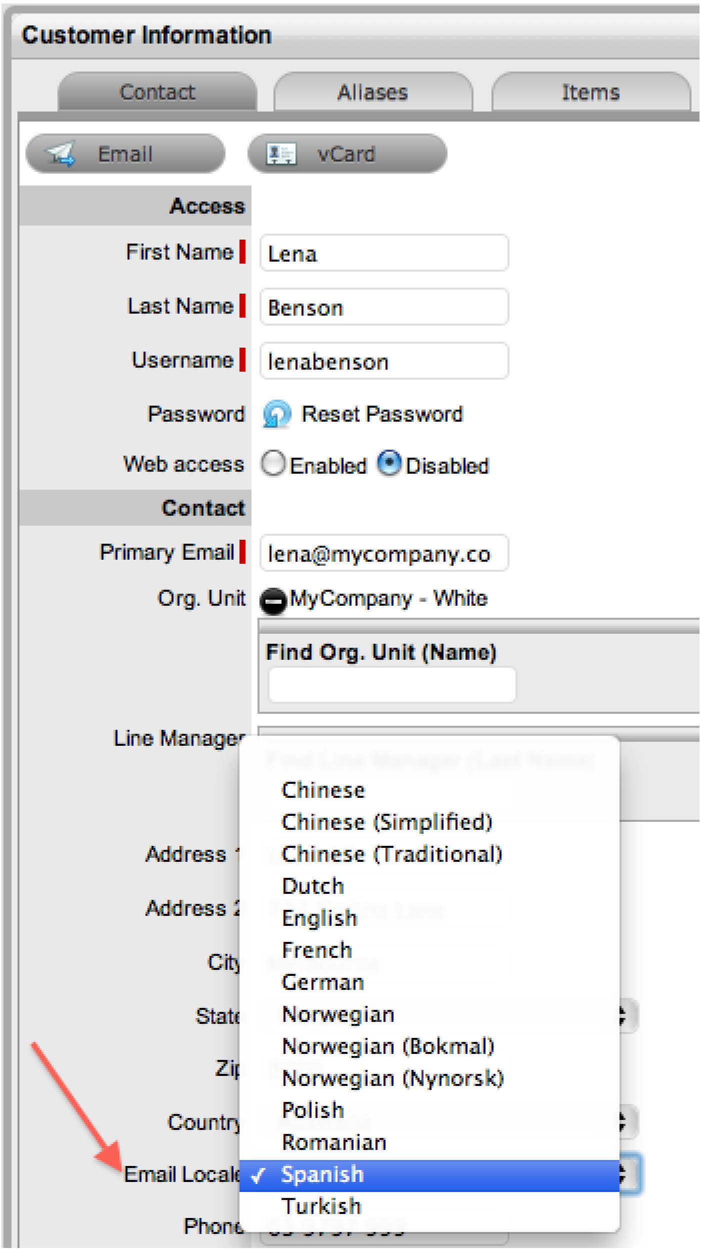
Content

Use the **Content** tab to localize automated messages, the user interface, system objects, and content for language files that the application uses.



Locale	Language	Country	Character Set
Chinese	Chinese		UTF-8
Chinese (China)	Chinese	China	UTF-8
Chinese (Taiwan)	Chinese	Taiwan	UTF-8
Dutch	Dutch		UTF-8
English	English		UTF-8
French	French		UTF-8
German	German		UTF-8
Norwegian	Norwegian		UTF-8
Norwegian Bokmål	Norwegian Bokmål		UTF-8
Norwegian Nynorsk	Norwegian Nynorsk		UTF-8

You can apply the localized content to customers and users by setting the **Email Locale** option in their account information screen.



You can localize content across the following elements and messages:

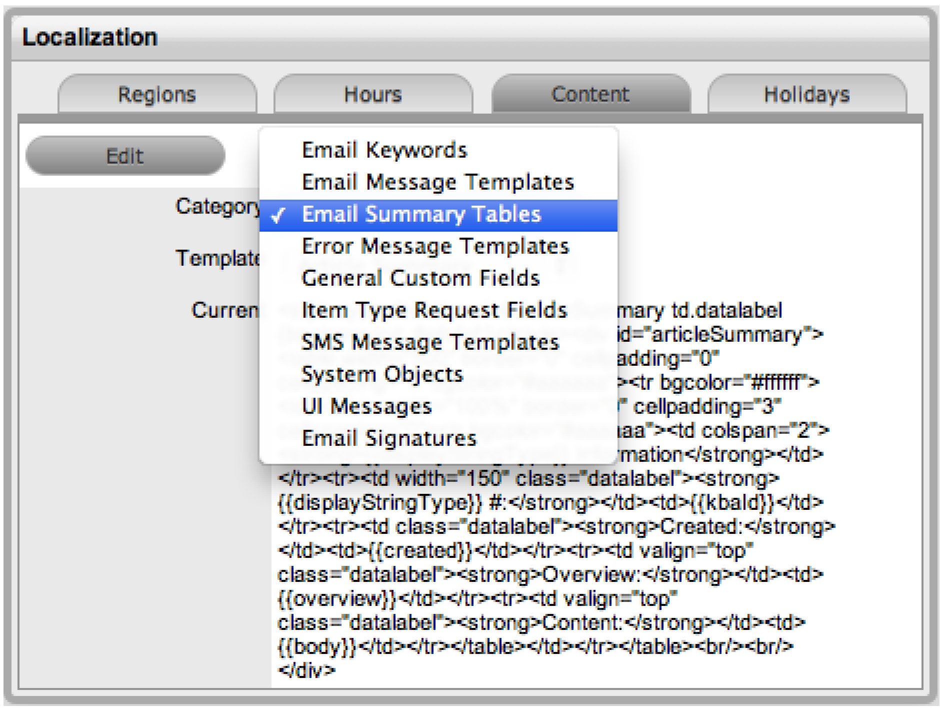
- Email Keywords
- Emal Message Templates
- Email Summary Tables
- Email Team Templates
- Error Message Templates
- General Custom Fields
- Item Type Request Fields
- SMS Message Templates
- System Objects

NOTE You should localize user interface content, email, and SMS messages after you have configured and reviewed them within the **Setup > Email** and **Setup > Customize** tabs, respectively.

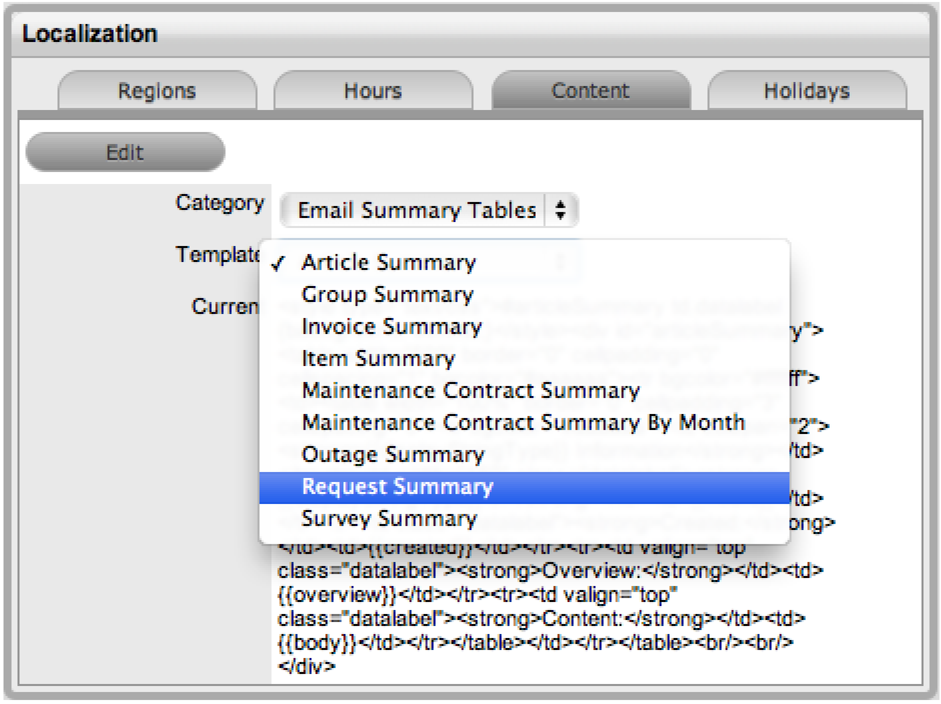
Localizing System Content

➔ To localize system content:

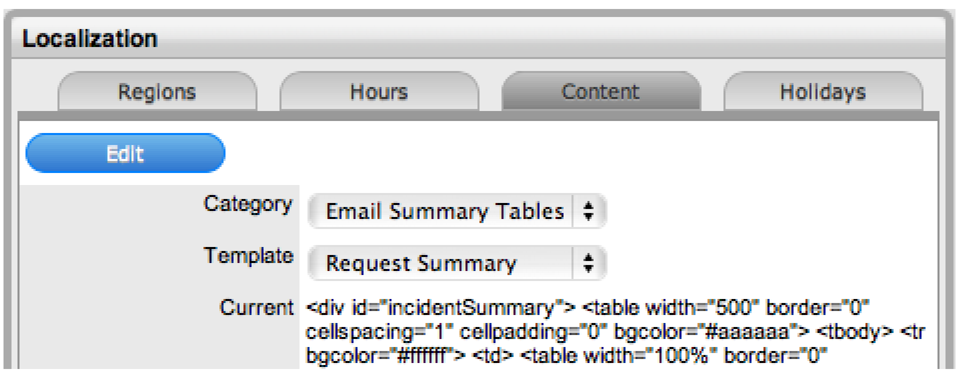
1. Go to **Setup > Localization > Content**.
2. Select the locale that you want to customize.
3. From the **Category** list, select the element you want to customize.



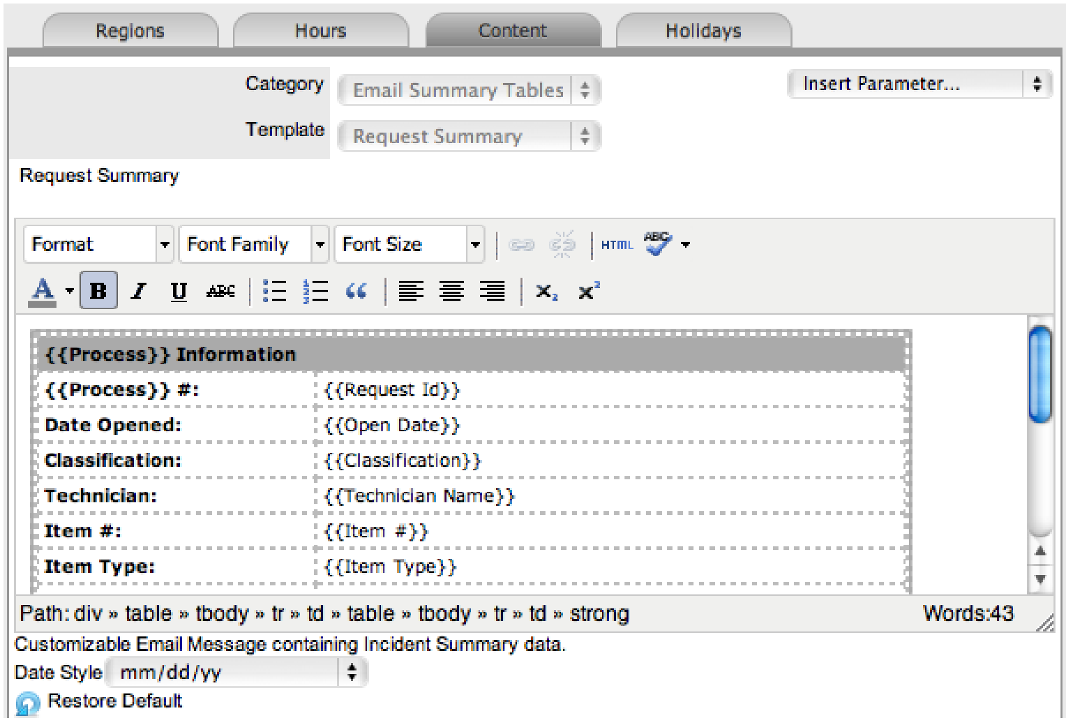
4. Within the list shown after you select a category, choose the element to customize.



5. Click **Edit**.



6. Edit the content and format, if required.


Regions
Hours
Content
Holidays
Category
Email Summary Tables
Template
Request Summary
Insert Parameter...
Request Summary
Format
Font Family
Font Size
{{Process}} Information
{{Process}} #:
{{Request Id}}
Date Opened:
{{Open Date}}
Classification:
{{Classification}}
Technician:
{{Technician Name}}
Item #:
{{Item #}}
Item Type:
{{Item Type}}
Path: div » table » tbody » tr » td » table » tbody » tr » td » strong
Words:43
Customizable Email Message containing Incident Summary data.
Date Style
mm/dd/yy
Restore Default

7. Click **Save**.

Events, SLAs, and Technician Assignment

The **Events** tab allows you to configure the system to automatically account for non-service days of the Service Desk, regardless of its location. This tab forms part of the technician assignment facility, as the system logic considers events (such as public holidays) in relation to service level requirements and technician availability. For example, if your Service Desk has a global customer base and office locations in multiple countries, you can configure the observed public holidays for each of the different countries and states. Then when a customer logs a request in one country where the Service Desk has a public holiday, the system can assign the new request to a technician in a region that does not have the holiday.

The system also adjusts the SLA timers in relation to breaches and escalations, where relevant. This means that once a public holiday starts (at midnight in the location where the holiday falls), the due dates of all requests are moved forward for the period of time that the public holiday is in effect.

Accessing Events Functionality

To configure the events functionality, first enable the **Observe Public Holidays** option in the **Setup > Privileges > User** tab. This option provides access to a fully configurable list of public holidays within the **Setup > Localization > Events** tab.

Creating New Events

By default, the system includes national public holidays for a number of countries, which you can access by selecting a country from the **Filter** list. This list can be expanded to include any country, including relevant holidays for a country's different states or provinces.

NOTE You must adjust the dates for rescheduled holidays on an annual basis. Tip: Use the scheduled quick call functionality within the User Portal on the **Home > Quick Calls** tab to create the annual task automatically.

→ To create a new event for any country, state, or province:

1. Go to **Setup > Localization > Events**.
2. Click **New**.
3. Complete the field details.
4. If you selected **Custom Schedule** as the **Interval**, select .
   - The **Date** field for rescheduling the event is shown. This field allows you to adjust the day the public holiday is observed, and caters for instances where the public holiday falls on the weekend but is observed on either the Monday or Friday. You must account for this adjustment on an annual basis for all relevant holidays.
5. Enter the date and click **Save**.
   - The date is saved as a rescheduled entry.
6. Click **Save**.

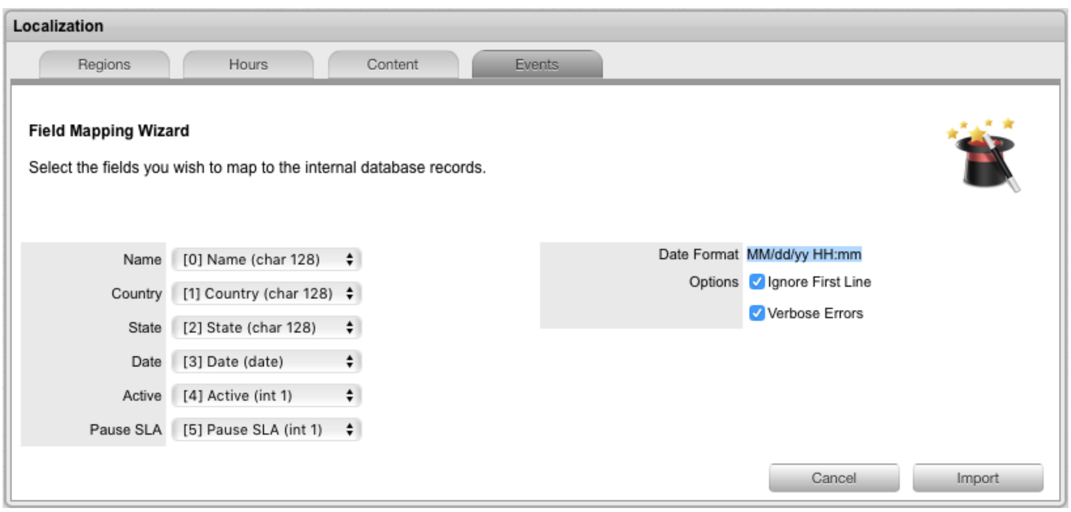
Importing Events

In addition to using default events or creating new events, you may also import multiple events from a CSV file.

NOTE Use the provided CSV template that shows the expected fields and format for importing events.

➔ To import events for any number of country & state/province combinations:

1. Go to **Setup > Localization > Events**.
2. Click **Import**.
3. Download the CSV template.
4. Complete the template using your preferred editor and save it as a CSV file.
5. Click **Choose File**, select the CSV file you created, and click **Upload**.
6. Map the fields to the respective attributes required for the import. If you used the template file, these fields populate automatically.
7. Click **Import**.



Deleting a Rescheduled Entry

To change a rescheduled entry for an event, you must delete the existing entry. Note that you cannot delete historical entries as they may be required for historical reference purposes.

➔ To delete a rescheduled entry for an event:

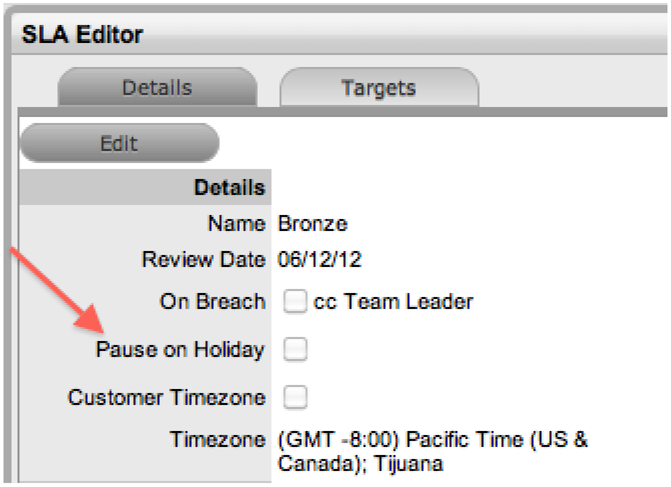
1. Go to **Setup > Localization > Events**.
2. Select the link of the relevant event.
3. Select the relevant **Rescheduled Entry** link.
4. Click the **Delete** button.
   - A warning window opens.

5. Click **OK** within the warning window.

Public Holidays System Logic

The system applies a public holiday logic to SLAs on a per-SLA basis. This process allows for the system to include SLAs that observe the public holidays and others that do not.

For public holidays to be considered in relation to an SLA, the **Pause on Holiday** option must be enabled for the specific SLA in the User Portal. This option is only visible within the **SLA Editor** screen when the **Observe Public Holidays** option is enabled at **Setup > Privileges > User**.



When the **Pause on Holiday** option is enabled, note the following:

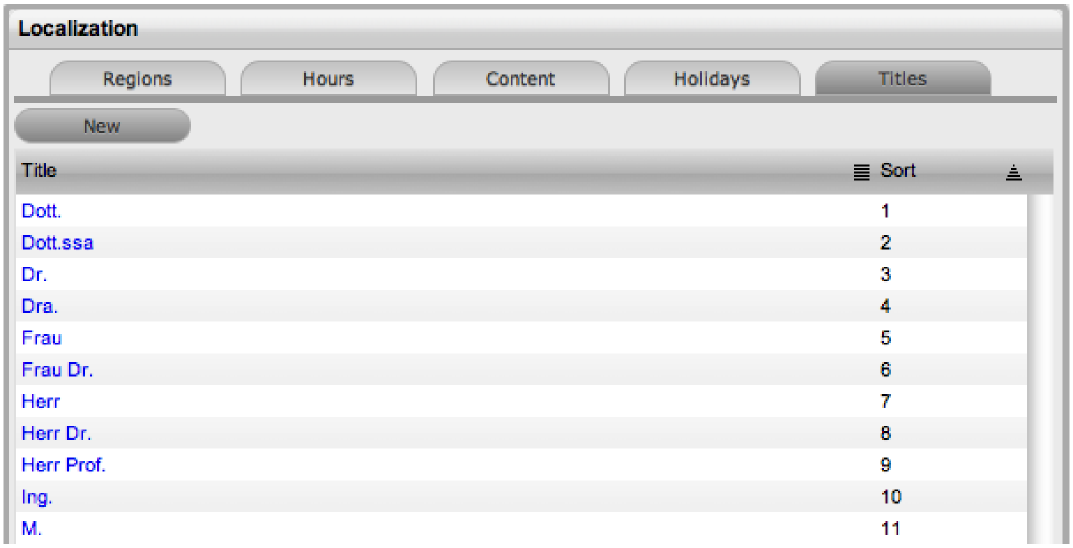
- When a public holiday occurs for technicians, their assigned requests have their SLA timers adjusted only if the **Pause on Holiday** option is enabled for the specific SLA. SLA timers fire normally for any requests using an SLA that does not have this option set.
- The amount of time a request is paused relies on the SLA open hours, which can be defined as 24 hours or specific hours of operation. For example, where the SLA open hours are defined as 9:00 a.m. to 5:00 p.m. weekdays, the base time of eight hours is applied to pause the SLA.
- If the Service Desk is opened for part of the day that is declared a public holiday, the **Open Hours** set for the public holiday are deducted from the SLA open hours. For example, if the public holiday was observed from 12:00 p.m., where the SLA open hours are defined from 9:00 a.m. to 5:00 p.m., the base time would be reduced by three hours and the SLA paused for five hours.
- If the due date falls on a public holiday and the hours applied to pause the SLA do not push the due date to normal operating hours, then:
  - For 24x7 support: the system pushes the due date to midnight, or the beginning of the next service day
  - For configured support hours or "normal support": the due date is pushed to the start time of the next "open" day
- If the request operation that works 9:00 a.m. to 5:00 p.m. Monday to Friday, and a request's due date is 2:00 p.m. on the Friday, the due date is pushed to 9:00 a.m. the following Monday. In a workflow status where an OLA applies, the OLA is adjusted by the same amount that the SLA is paused.
- When the **Pause on Holiday** option is enabled for a new request that is logged with the system during public holiday hours, if the system cannot find an available technician for

request assignment, it assigns the request to a technician in the first layer of escalation, based on the technician assignment logic. This scenario generally applies to organizations where the Service Desk team is based in one location. (If all technicians have their **On Vacation** status set to **Yes**, the request is assigned to the team lead.)

- If a technician is not available to work on the request, and the new request is assigned an SLA with the **Pause on Holiday** option enabled, the due date is calculated based on the time the request is created plus the number of hours left of the public holiday. For example, if an SLA's open hours are paused for 24 hours (a full day), for a request created at 8:00 p.m., the due date is calculated using the target of the SLA priority plus four hours (as there are four hours remaining in the public holiday).

Titles

The **Titles** tab is available when the **Use Titles** option is enabled in the **Setup > Privileges > Customer** tab. Titles you configure here become options to select from within the **Customer Information** and **User Information** screens.



Editing a Title

You can rename or resort titles listed in **Setup > Localization > Titles** as required.

→ To edit a pre-existing title:

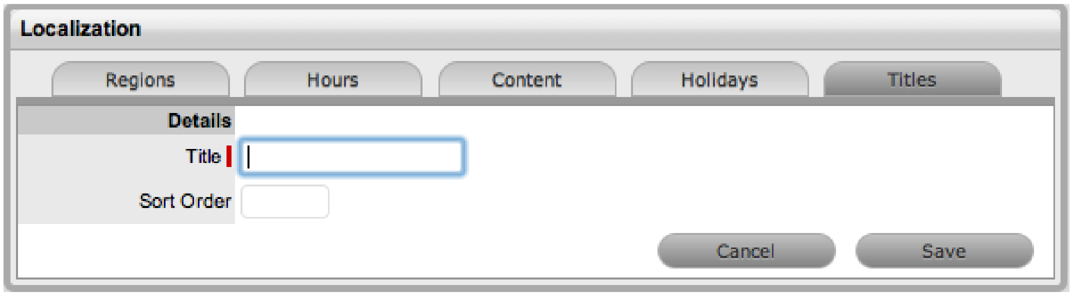
1. Go to **Setup > Localization > Titles**.
2. Select the title that you want to edit.
3. Edit the **Title**, if required.

4. Update the **Sort Order**, if required.
   - This setting changes where the title appears in the drop-down list options when the **Title** list is available in the **Customer Information** and **User Information** screens.
5. Click **Save**.

Creating a Title

→ To create an additional title list option:

1. Go to **Setup > Localization > Titles**.
2. Click **New**.



3. Enter the **Title** details.
4. Enter a **Sort Order** number.
   - This setting defines where the title appears in the drop-down list options when the **Title** list is available in the **Customer Information** and **User Information** screens.
5. Click **Save**.

Deleting a Title

→ To delete a title:

1. Go to **Setup > Localization > Titles**.
2. Select the title you want to delete.
3. Click **Delete**.

Licenses

The **Licenses** tab shows information about the currently installed license for LiveTime. You can view details of the current license, hosting server, and licensed users from this tab. You can also install a new license here.

Viewing a License

→ To view a license:

1. Go to **Setup > Licenses > License**.
2. You can check license information on the following topics:

License Information	
Product	Identifies which version of LiveTime is currently installed.
Licensee	The organization that holds the license.
User Limit	The maximum number of non-customer users who are allowed to use the system. Value inside brackets indicates how many licenses are already in use.
Incident Roles	The number of individual incident management licenses purchased.
Request Roles*	The number of individual request fulfillment licenses purchased.
Problem Roles*	The number of individual problem management licenses purchased.
Change Roles*	The number of individual change management licenses purchased.
License Type	Details on whether the current license is permanent or temporary.
MAC	The MAC address of the host server.
Valid Host	Shows **Yes** if the MAC address in the license key matches the MAC address of the deployment server.
Status	Indicates whether the license is currently valid.

** Not applicable in the Help Desk edition of LiveTime.*

Updating License Information

The **License** tab allows you to enter a new license using a license key and certificate for the application.

→ To update license information:

1. Go to **Setup > Licenses > License**.
2. Click **New**.
3. Enter the **License Key** for the application.
4. Enter the **Certificate** details.
5. Click **Next**.
6. Click **Save**.

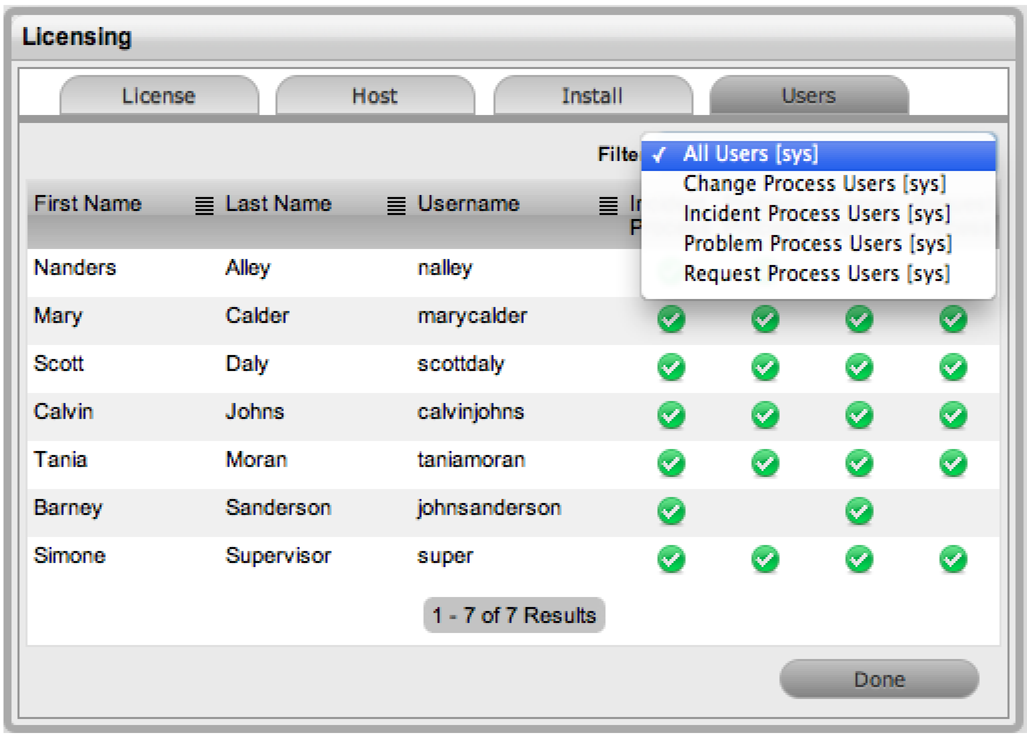
- The **License** tab shows the updated license details.

Host Tab

The **Host** tab shows the host name and IP address for the server where the application is deployed.

Users Tab

The **Users** tab lists all current users of the system, including their assigned processes. You can filter the list based on process by using the **Filter** list in the top right of the tab.



NOTE The process filter and columns (**Problem Process**, **Change Process**, and **Request Process**) do not apply in the Help Desk edition of LiveTime.

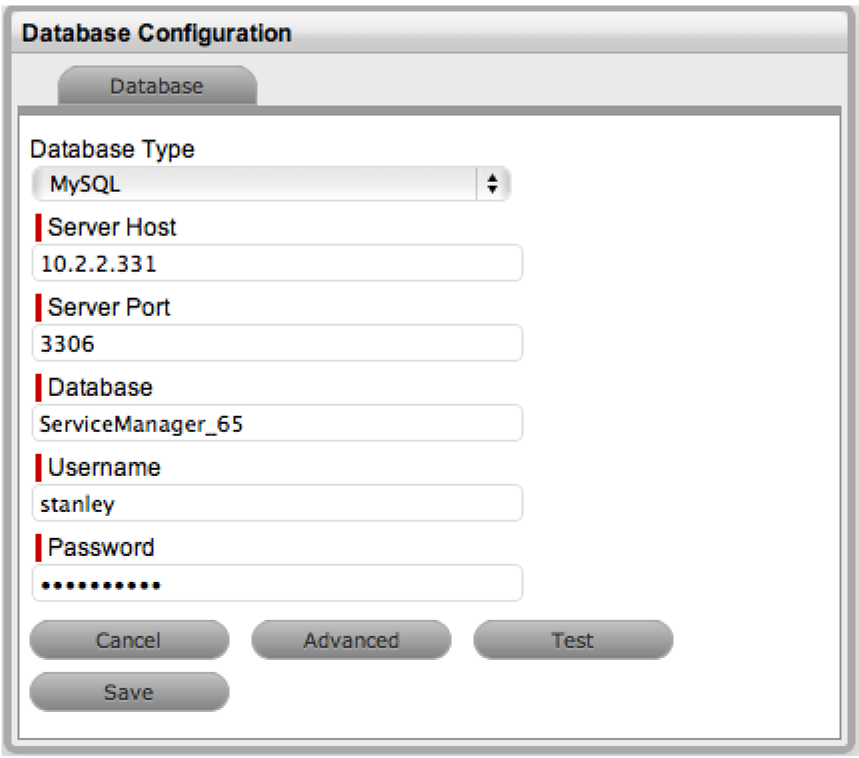
Database

Use this section to specify the database connection details that the system should use to connect to the database.

Configuring Database Settings

➔ To configure database settings:

1. Go to **Setup > Database**.
2. Click **Edit**.



3. Enter or modify database connection details.

Database Setup	
Database Type	Select the type of database.
Server Host	Enter the IP address of the server host.
Server Port	Enter the server port number.
Database	Enter the database name.
User name	Enter the username for the database.
Password	Enter the password for the database.

4. Click the **Test** button to verify the details entered and check the connection.
5. Click **Save**.

NOTE You must restart the system for any changes to take effect.

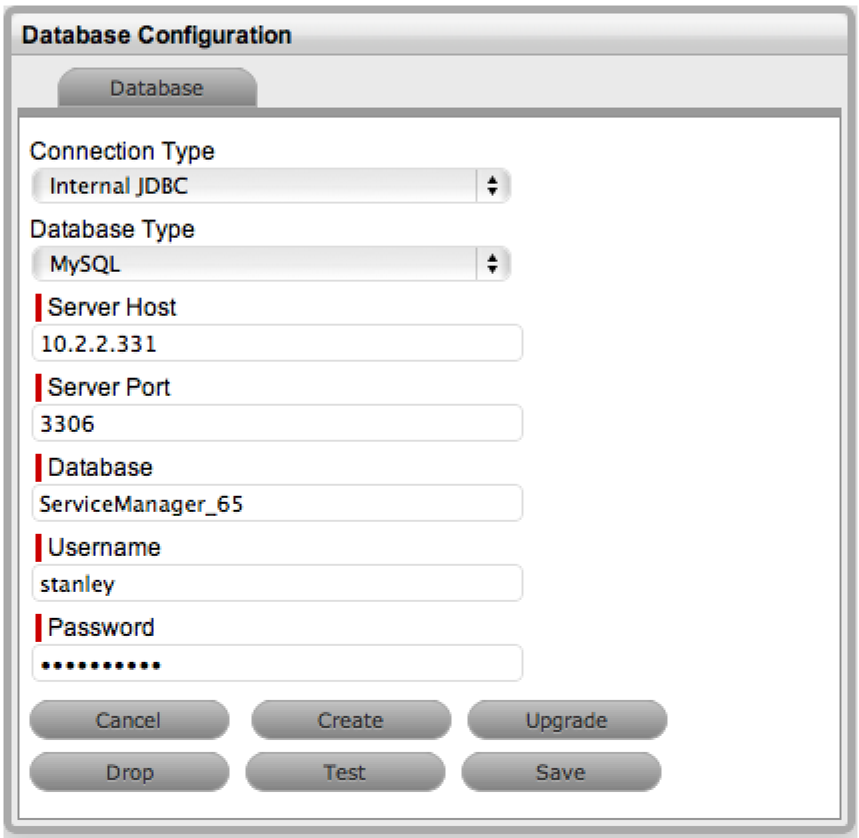
Test Button

Allows you to validate the database connection details between the service management application and the database. A system message lets you know whether the connection is successful.

Advanced Button

Allows you to change the default connection type, as well as generate scripts based on the database selected. When you click the **Advanced** button, the **Connection Type** list becomes available, allowing you to select the Java Database Connectivity (JDBC) connection. This option is set by default to **Internal JDBC**.

NOTE Changing the connection type to **Custom JDBC Driver** allows you to change the driver. **This option is NOT recommended.**



The buttons available provide the following functionality:

Advanced Settings	Description
Create	Generates a SQL creation script for the connected database that the database administrator can use to create the system database.
Upgrade	Allows the database administrator to upgrade to the database for a new release. NOTE Before upgrading, be sure to make a backup of the existing database.
Drop	Creates a script that the database administrator can run against an existing system database

Advanced Settings	Description
	to erase the schema and content.

Migration

Use this section to perform a migration of LiveTime data from your existing database to another database. You may need to migrate your database if, for example, you are moving from an evaluation to a production version of the product, or you need to move from your current database platform to another supported platform (for example, from Oracle to SQL Server).

IMPORTANT During the migration process, the system is locked down to prevent any changes to the database. If any errors occur while data is being migrated, the entire process stops and the database reverts to its previous state.

➔ To perform a database migration:

1. Go to **Setup > Database > Migration**.
2. Enter the connection details for the target database.

Target Database	
Database Type	Select the type of database you are migrating to.
Server Host	Enter the IP address of the server host.
Server Port	Enter the server port number.
Database	Enter the database name.
Username	Enter the username for the database.
Password	Enter the password for the database.

3. Click the **Test** button to verify the details entered and check the connection.
4. Click **Start**.

Authenticating Users

There are several ways to authenticate LiveTime users. By default, the system uses its internal authentication mechanism but there is also the option to authenticate against one or more directory servers, or to use external providers.

Internal Authentication

Using internal authentication requires an administrator or supervisor to create accounts for all users by manually entering their contact information, access levels, and password. This user information is then saved to the system database. The typical case for using internal authentication is when your implementation includes few users, or when you have no pre-existing directory server. Typically, the administrator configures user accounts prior to announcing the system is operational, and from that point on, maintains the accounts as necessary. (See Create Customers or Create Users for more information.)

External Providers

External providers that follow OpenID or OAuth standards can also be used to verify a customer's or user's online identity. These standards address single sign-on by not relying on a centralized website to confirm a person's identity and provide seamless authentication between third-party authentication utilities and LiveTime. You can configure external providers within the **Setup > Security** tab, and customers or users who have accounts with the configured providers (for example, Facebook, Google, or Yahoo) can log in to the system by selecting the relevant icon on the login page.

Directory Server Authentication (External Authentication)

The system allows the administrator to connect to one or more directory servers for user authentication purposes. This process removes the need to manually create user accounts as it allows LiveTime to synchronize user accounts and access levels with the existing directory server. This method of authentication has the added benefit of allowing you to work with your organization's existing infrastructure. (See AD Authentication or LDAP Authentication for more information.)

Directory Server Groups

Because the system uses roles to grant access within the application, users must be assigned to groups on the directory server that correspond to the roles within LiveTime to allow for the proper synchronization of access levels.

The default group names the system expects to find on the directory server are the following:

- Administrators
- Supervisors
- Technicians
- Partners
- Managers
- Finance
- Customers

You can customize these group names in the LDAP/Active Directory **Advanced** tab. Users can belong to more than one group: for example, if a user holds the roles of Technician and Manager, he or she would belong to the Technicians and Managers groups.

NOTE Users can have only one of the Partner, Supervisor, or Technician roles. Therefore, they can belong to only one of these groups. However, they may also belong to any other group, or combination of groups.

The following fields may or may not be mapped to the directory server, depending on the options set by the system administrator:

- First Name
- Last Name
- Email
- Phone
- Mobile
- Pager
- Address
- City
- Zip
- Country

Email Address

All user accounts must include an email address to be successfully imported into the system. If additional fields are mapped from the directory server to corresponding fields in the application, a drop-down menu containing all the optional values for the field is available beside the mapped field. Choose the correct value from each list.

Mixed Mode Authentication

The application can use mixed mode authentication, which is a combination of internal and external authentication. In this mode, LiveTime synchronizes with a directory server to import user and customer details, and allows you to be create customer accounts directly within the system. This feature is useful if your organization is using LiveTime for both internal and external customer support.

To enable mixed mode authentication, after the system has connected to the directory server, go to **Setup > Privileges > Customer** and enable the **Include Customers** option, then set the **Mixed Mode** option to **Yes**.

NOTE If LiveTime authenticates against a directory server, all user accounts validate against the server except for the application default administrator. The default administrator account details can be modified within the **My Account** tab of the application.

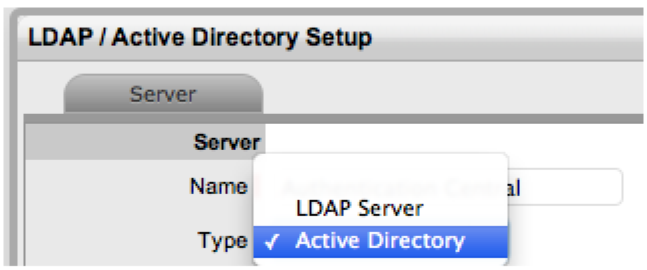
Active Directory Integration

Active Directory is a unique implementation of the LDAP standard that requires communication to conform to Microsoft Windows authentication protocols. To meet this requirement, it is necessary to enter all domains from which users authenticate. You can synchronize multiple sources of Active Directory with the system, if required.

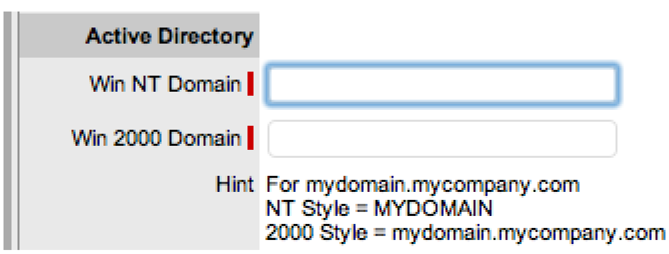
Configuring Active Directory Integration

→ To configure the Active Directory integration:

1. Go to **Setup > LDAP**.
2. Click **New**.
3. Enter the server name.
4. Select **Active Directory** from the **Type** list.



5. Define all the domains from which users will be authenticated.
   - You must enter domains in both Windows NT and Windows 2000 domain naming formats since Active Directory conforms to the authentication protocols of these operating systems.
   - Input entries with care as the system domain editor does not validate them against the directory server.



   - Here is an example of both naming conventions for a domain:
   - For mydomain.mycompany.com
     Windows NT style = MYDOMAIN
     Windows 2000 style = mydomain.mycompany.com
6. Click **New** and enter domain information.
7. Click **Save**.
8. Select the **Default Domain**, which the system uses in the following three ways:
   - The domain shown on the login page
   - The domain to authenticate against when synchronizing with the directory server

- The domain where the system expects to find user groups

9. Enter all other required fields to configure the directory server:

Settings	Description
Security	Determines how the integration layer authenticates. For Active Directory, this option should be set to **Cleartext – Username + Password**. Anonymous connections to Active Directory are rarely enabled.
Server Host	Enter the hostname or IP address of the Active Directory server. On a Windows NT domain, this value is the primary domain controller.
Server Port	The default Active Directory server port is 389. This value rarely needs to be changed.
Username	Used by the system to authenticate against the Active Directory server when reading account information. The domain prefix/suffix will be appended, based on the default domain, when connecting to the server.
Password	Enter the password for the username account.
Users Node	The component of the base domain name that refers to the location of the user groups. For example, assume the location of the user groups is the following: ou=UserGroups, ou=MIS, dc=myoffice, dc=mycompany, dc=com (See LDAP/Active Directory Advanced Settings for information on group configuration.) Groups must be in the default domain, in this case myoffice.mycompany.com. The **Users Node** only needs the location of the groups within the default domain, so the **Users Node** in this example is: ou=UserGroups, ou=MIS.
Default Timezone	Select the default time zone to be applied to all user accounts imported through Active Directory.

10. Click **Save**.
11. Repeat the above process to add more than one directory server for setting user access.

Adding Domain Aliases

If your Active Directory server uses domain aliases, you can add these aliases to the Active Directory integration setup. The system uses these aliases as alternative names for your configured Active Directory domain.

NOTE You must set up integration with your Active Directory server before you can add aliases (see "Configuring Active Directory Integration" above).

→ To add a domain alias:

1. Go to **Setup > LDAP**.
2. Click **New**.
3. Enter the server name.
4. Select **Active Directory** from the **Type** list.
5. Enter the domain alias.
   - You must enter domains in both Windows NT and Windows 2000 domain naming formats since Active Directory conforms to the authentication protocols of these operating systems.

- Input entries with care as the system domain editor does not validate them against the directory server.

6. Select the **Alias** checkbox.
7. From the **Target** list, select the Active Directory server that you are creating an alias for.
8. Click **Save**.

Test Button

The **Test** button creates a connection to the Active Directory server, applying the configuration settings. If successful, the system attempts to determine how many users are in each group and opens a Results screen.

NOTE If the test fails, an error message indicates the cause of the failure.

Sync Button

The **Sync** button runs the synchronization process to import all users from the directory server. You might perform this manual synchronization if new Active Directory accounts have been created and those users require immediate access to the system.

Only one synchronization can run at a time. When multiple users need access to the system, create the accounts, then run a single manual synchronization.

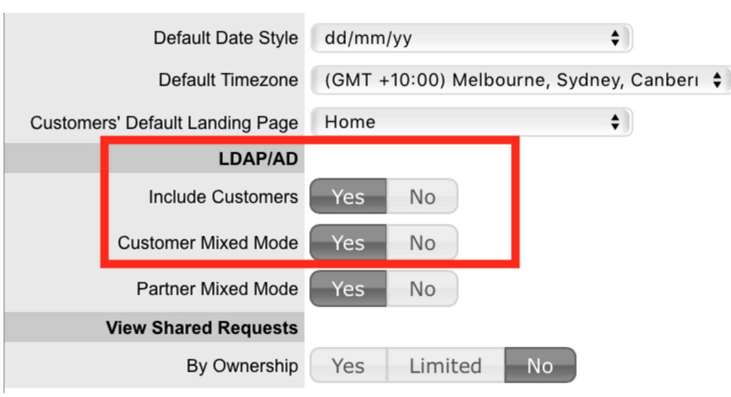
A manual synchronization may take some time depending on the connection speed with the external service. Manual synchronization works best for small directories. Larger Active Directory implementations can take some time to propagate the changes, so account information may not be immediately available.

Importing Partners

Partners are imported like any 'User' role, however partner accounts can be unique in that they may not necessarily be defined in the AD/LDAP server as they are typically third parties, external to the organization. To support this usage scenario it is possible to specify the partner role to use Mixed Mode' authentication, so these accounts can also be defined locally within the LiveTime instance.

Importing Customers

You can import customer details using Active Directory by enabling this option, if required. When the system is set up to synchronize with Active Directory, go to **Setup > Privileges > Customer** and enable the **Include Customers** option.



If there is a need to create customers using both Active Directory and the system's internal authentication capability, you can also enable mixed mode authentication. After you set the **Include Customers** option to **Yes**, set the **Mixed Mode** option to **Yes** to allow customers to be created both directly in the system and using Active Directory.

Imported Account Usernames

Accounts imported from Active Directory use the UPN as the username, as opposed to the Windows NT style login. The domain component of the UPN is derived from the selected domain in the popup on the login page, which means users need to enter only their login name to connect to LiveTime.

LiveTime passes login details directly to the directory server for authentication and does not retain these details.

LDAP Server Integration

You can synchronize multiple types and sources of directory servers with the system at any one time. LiveTime supports many Lightweight Directory Access Protocol (LDAP) servers, including the following:

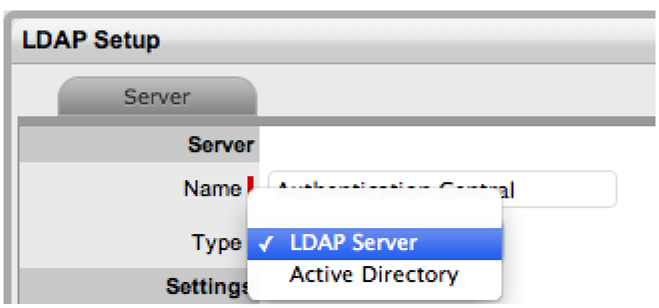
- Open LDAP
- 389 Directory Server
- NetIQ eDirectory

NOTE Since LDAP follows a standard, the settings detailed here should also apply to other server implementations.

Configuring LDAP Server Integration

→ To configure LDAP server integration:

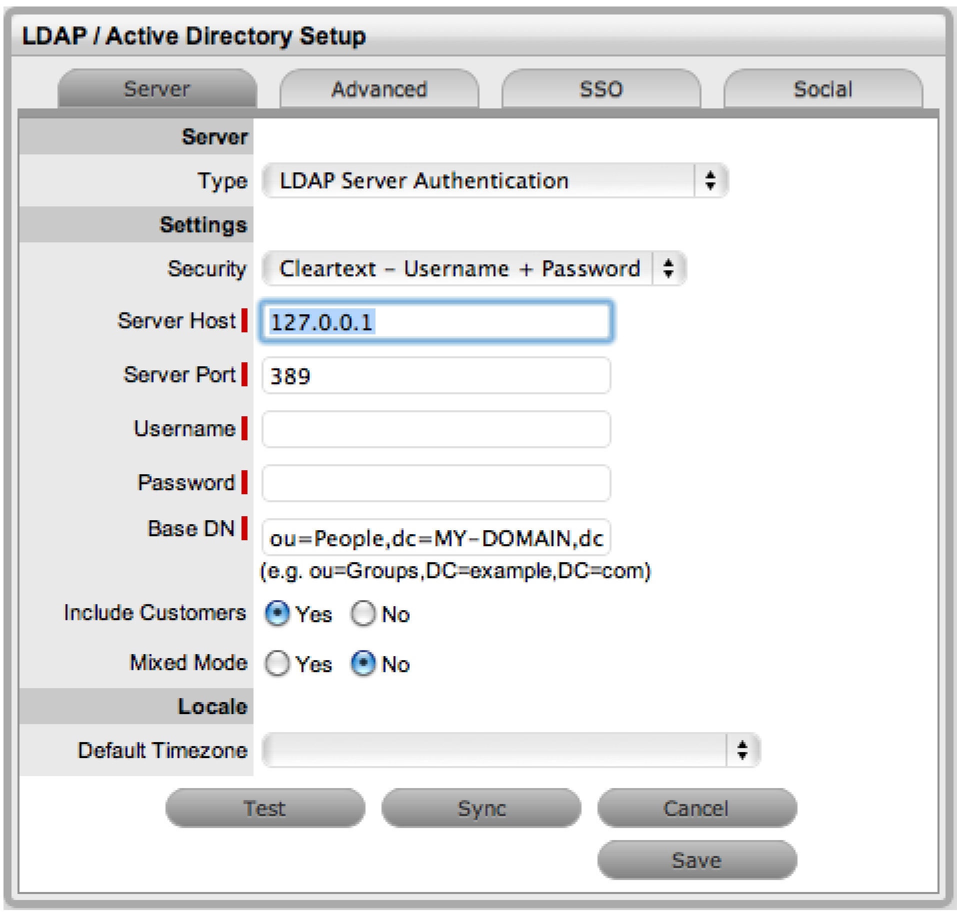
1. Go to **Setup > LDAP**.
2. Click **New**.
3. Enter the server name.
    - (If the system is to synchronize with ZENworks, ensure the server name matches the user source name used by ZENworks.)
4. Select **LDAP Server** from the **Type** list.



5. Enter all other required fields to configure the LDAP server:

Fields	Description
Security	Secure Socket Layering (SSL) encryption is provided for Active Directory and LDAP server integration. Details entered here determine how the integration layer authenticates. User authentication can be with Secure Socket Layering (SSL) or Clear Text. Select **Anonymous** or **Username + Password**. If you select **Anonymous**, ensure anonymous access to the directory is available.
Server Host	Enter the host name or IP address of the LDAP server.
Server Port	This is the LDAP server port. The default is 389.
Username	The system authenticates the username against the LDAP server. Leave this field blank for anonymous connections.

Fields	Description
	Where a username is provided, 389 Directory Server allows internal users to connect as the account name, so using 'cn=Directory Manager' is acceptable. OpenLDAP expects the fully qualified domain name for the user, regardless of access level, so at the very least 'cn=Manager,dc=example,dc=com'. For other accounts, the user Base DN is required. Users logging in need only enter their login name; it is assumed the login name is unique across the entire directory.
Password	If a user account is specified in the **Username** field, enter the account password.
Base DN	The base domain name refers to the domain location of the user groups. For example, assume that the location of the user groups is the following: ou=UserGroups,ou=MIS,dc=myoffice,dc=mycompany,dc=com The above string would be the **Base DN**.
Default Timezone	Select the default time zone to apply to all user accounts imported using the directory server.



Test Button

The**Test** button creates a connection to the LDAP server using the configuration settings. If successful, the system attempts to determine how many users are in the top level of each group and opens a Results screen.

NOTE If the test fails, an error message details the cause of the failure.

Sync Button

The **Sync** button runs the synchronization process manually. It is most useful for the initial deployment, and when new directory server accounts have been created for users who require immediate access to the system.

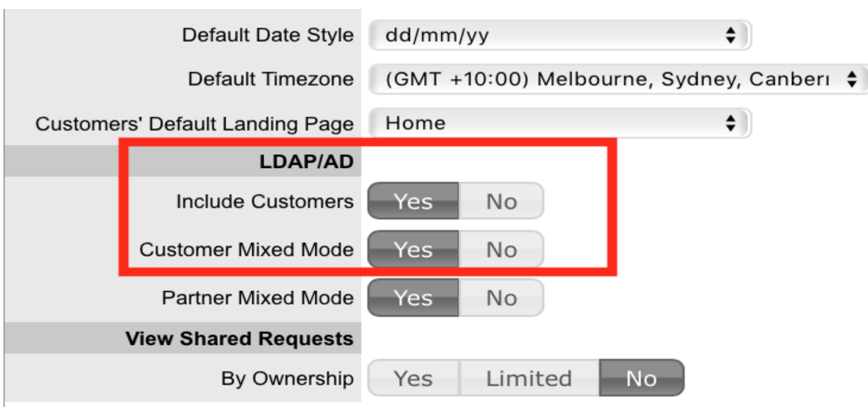
If you are using certificates, ensure you enter the certificate details in the **Certificates** tab before synchronizing.

Only one synchronization can run at a time. For multiple users needing access, create the accounts on the LDAP server, then run a single manual synchronization.

A manual synchronization may take some time depending on the connection speed with the external service. Manual synchronization works best for small directories, as larger directories take more time to propagate changes.

Importing Customer Details

You can import customer details using LDAP by enabling this option, if required. When the system is set up to synchronize with LDAP, go to **Setup > Privileges > Customer** and enable the **Include Customers** option.



If there is a need to create customers using both LDAP and the system's internal authentication capability, you can also enable mixed mode authentication. Set the **Mixed Mode** option to **Yes** to allow customers to be created directly in the system and using LDAP.

Configuring Your LDAP Server

When configuring your LDAP server to integrate with LiveTime, you must create new groups (up to seven) in a common location where the LDAP user specified in LiveTime has read access. These groups must conform to the object class "groupOfUniqueNames" rather than "groupOfNames", as "groupOfUniqueNames" contains the required "uniqueMember" attribute.

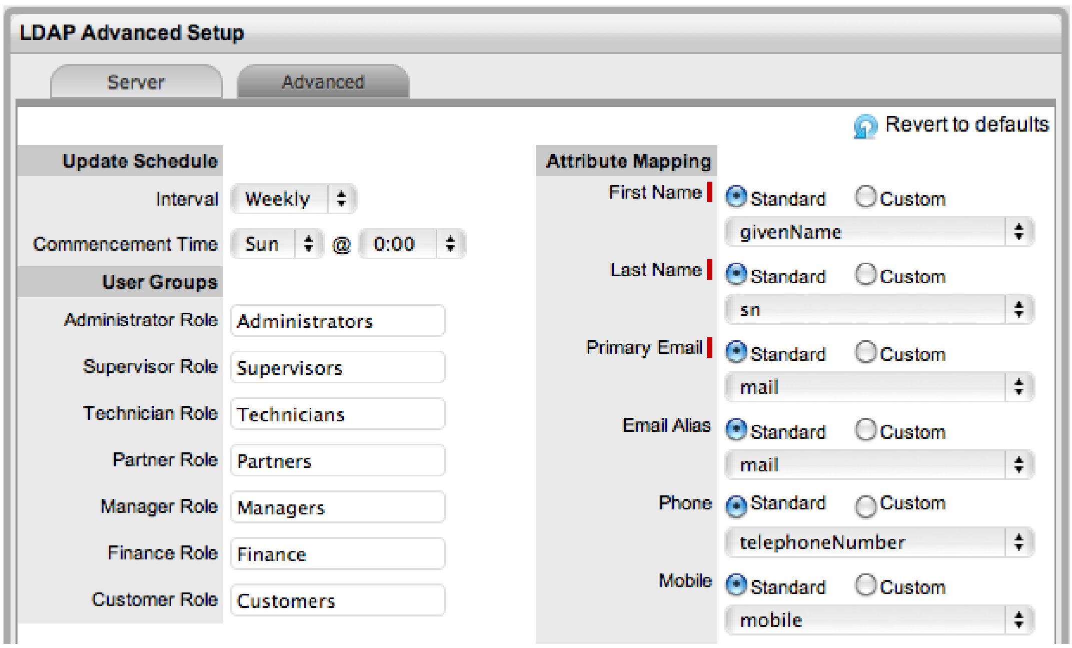
LDAP/Active Directory Advanced Settings

Before setting up the LDAP/Active Directory configuration within the system, you should customize the settings on the **Advanced** tab. The default setup assumes that the user groups the system uses to authenticate match what is on the server, and that the user information imported matches the attributes available on the server.

Setting LDAP/Active Directory Advanced Options

→ To configure the advanced options for LDAP/Active Directory:

1. Go to **Setup > LDAP**.
2. Click **Edit**.
3. Click the **Advanced** tab of the selected directory server.



4. Enter the relevant details for the fields, as required:

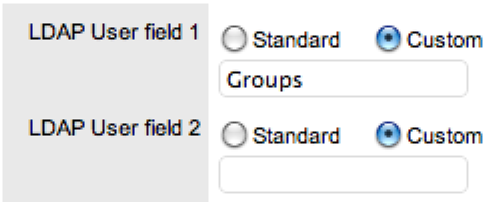
Field	Description
Revert to Defaults	Resets the installation defaults.
Update Schedule	Sets a routine synchronization to update the system with current AD/LDAP accounts. Select the desired interval from **Daily**, **Weekly**, **Bi-Weekly**, **Monthly**, **Bi-Monthly**, **Quarterly**, **Every X Hours**, or **Every X Days**
Next Start & Frequency	Sets the day of the week and time the system is to start automatically synchronizing with the directory server. In the case of the 'Every X Hours' and Every X Days' options, the Frequency can also be entered.
User Groups	Provides imported users roles. (The system looks for these groups by default.) You can customize the user group names, but each group must have a unique name. The group names on the directory server must be identical to the user group names

Field	Description
	entered here. Members of each group are assigned the appropriate role within the system. To assign multiple roles to users, make sure they are members of each of the required groups. Users can have only one of the Supervisor, Technician, or Partner roles but they can also have any other role or combination of roles.
Attribute Mapping	Maps attributes from the directory server to corresponding fields in the system. Native system fields are **First Name**, **Last Name**, **Email** (a unique email address must be included for the system to create a user account), **Phone**, **Mobile**, **Pager**, **Address**, **City**, **Zip**, and **Country**. NOTE Mandatory user information for new and existing user accounts includes the **First Name**, **Last Name**, and **Email** attributes. If these details are not available, the application cannot validate an existing user account and automatically reassigns any open or active requests to another valid user. **Standard:** Next to each field is a list of default fields specific to either the LDAP or Active Directory server type. For each native name, default fields are preselected. Use the default mapping or select the mapping attribute as required. **Custom:** Select a custom option to manually enter an attribute field.
Notes	LDAP attribute that defines the correspnding 'Notes' field in the directory server that will be imported.
GUID	Global Unique Identifier: • For ADS, select **objectGUID** • For OpenLDAP, select **entryUUID** • For eDirectory, select **GUID**
LDAP User fields/Mixed Mode User fields	The **LDAP User field** headings are replaced with any custom LDAP/ADS accounts fields that you create in **Setup > Custom Fields** (see Custom Fields), or Mixed Mode user fields if the **Mixed Mode** option is enabled in the **Server** tab. Use the list to select the appropriate mapping to the matching directory server field or select **Custom** to manually enter a field.
Customer Orgs	Organizational unit relationships can also be mapped from the authentication server. By default this functionality is not enabled. To activate customer organizational unit mapping, select **Yes** for the **Import Customer Organizational Units** option and define where the company and department information should be derived from.
Line Managers	LDAP attribute that defines a customer's line manager, which the system uses for processing approvals on service and change requests. Only system users with the Customer role can be assigned as line managers.
Title	LDAP attribute that defines a customer's title which can be imported and displayed near the customers name so they are addressed appropriately when contacting the service desk.

5. Click **Save**.

Mapping Fields to the Matching Directory Server Field

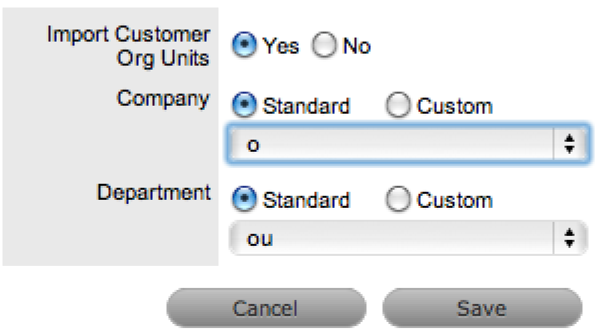
The **LDAP User field** headings are replaced with any custom LDAP/ADS fields that you create in **Setup > Custom Fields** (see Custom Fields for more information). Use the list to select the appropriate mapping to the matching directory server field or select **Custom** to manually enter a field.



The system imports user details when synchronization with the Active Directory/LDAP server takes place. You cannot modify imported fields through LiveTime directly; you must use the appropriate directory server console instead.

Importing Customer Organizational Units

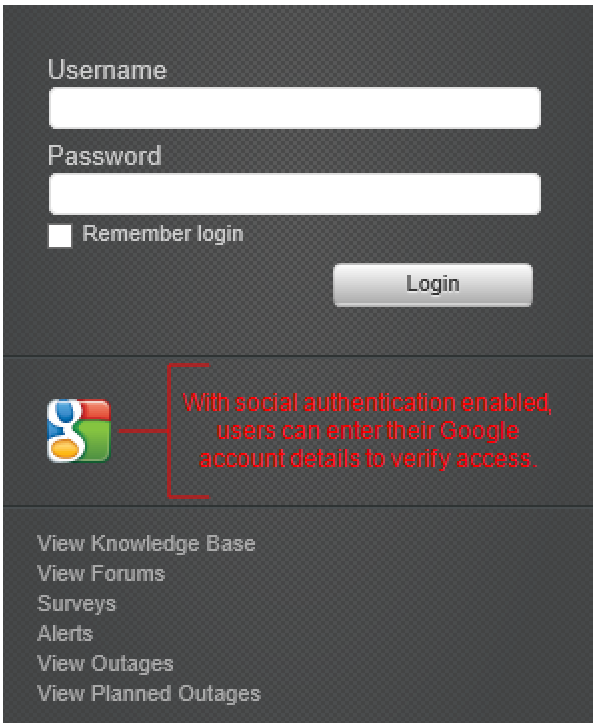
You can also import organizational unit relationships from the directory server. By default, this functionality is not enabled. To activate customer organizational unit mapping, select **Yes** for the **Import Customer Org Units** option.



NOTE Details of the organizational units do not populate upon this synchronization, only the organizational unit names. For the organizational unit details to populate to customer or user information, you must create the organizational unit in the **User > Organizational Units** tab of the User Portal and ensure the organizational unit name is identical to what is stored in the directory server. If the details are not identical, the system creates another organizational unit.

Social Authentication

The **Social Authentication** screen is available when the **Social Authentication** option is enabled within the **Setup > Privileges > System** tab. This functionality delegates the authentication of customers and users to external providers. Users and customers who have accounts with external providers recorded in the system can log in by clicking the appropriate icon shown on the system login page.



You can use the **Social Authentication** screen to configure the external providers you want to use to verify the online identity of customers and users accessing the system. By default, the system includes the details for Facebook, Google, and Yahoo, which you can enable by opening the relevant link and selecting **Yes**.

Enabling Default Providers

→ To use the default external provider options of Facebook, Google, or Yahoo to authenticate customer and user access:

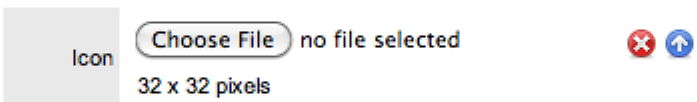
1. Go to **Setup > Security**.
2. Select the name of the external provider you want to enable.
3. Click **Edit**.
4. Set the **Enable** option to **Yes**.
5. For providers using the OAuth standard, enter the **API Key** and **API Secret** from the provider.
   - To access these values, you must set up your own developer account with the provider using the callback URL specific to your installation of LiveTime.
6. Click **Save**.
   - The external provider icon is now visible on the system login page.

To remove a default external provider, follow the above steps, but click the **Delete** button within the Details view of the provider.

Defining a Provider

→ To enter the account details for an external provider:

1. Go to **Setup > Security**.
2. Click **New**.
3. Complete the **Name** field.
4. Set the **Enable** option to **Yes**.
5. Click to upload the icon to show on the system login page for the provider.



6. Click **Choose File** to search for the image file.
   - The image must be 32 x 32 pixels.
7. Click to upload the file.
8. Enter the **URL** for the provider
9. Click **Save**.
   - The icon for the external provider is now active on the system login page.

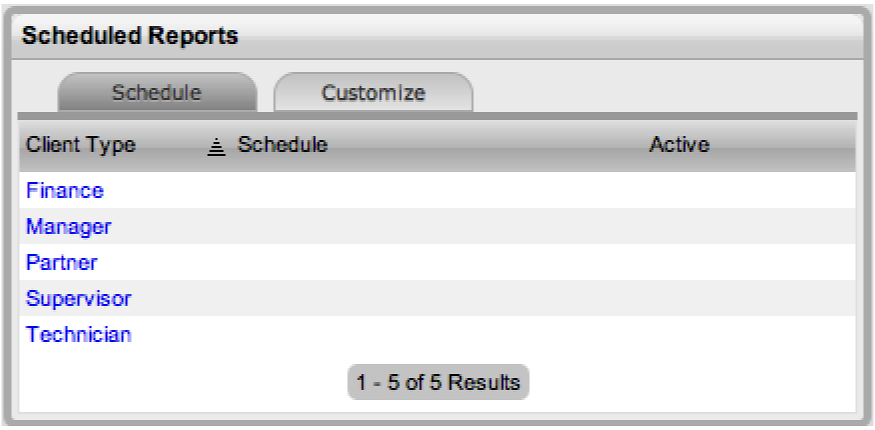
Scheduling Reports

The **Setup > Reports > Schedule** tab allows you to configure the system to automatically send reports through email to supervisors, technicians, finance users, partners, and managers on a regular basis. You can define the content of the email on a per-role basis and you can use either default reports or those built using the system report builder.

Setting Up Scheduled Reports

➔ To set up scheduled reports:

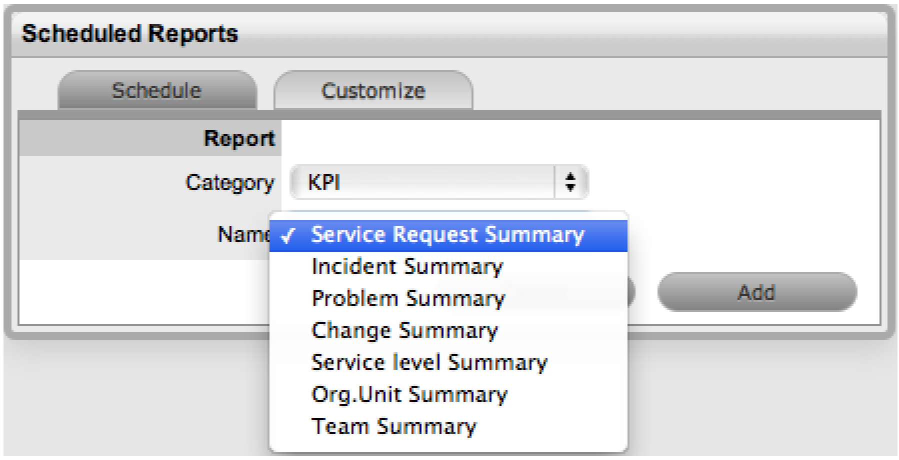
1. Select **Setup > Reports**.



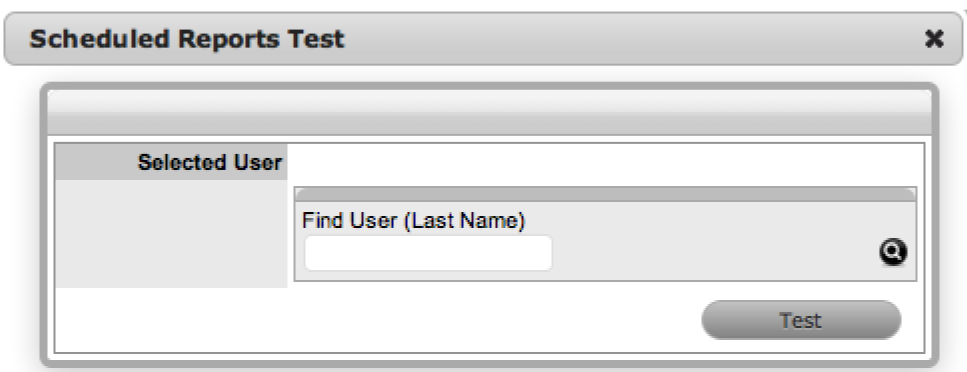
2. Select the name of the role that you want to set up reports for.
3. Set the **Active** option to **On** and enter the scheduled report details:

Setting	Description
Interval	Define how often the automated reports should be sent.
Next Start	Using the calendar, set the time and date the report should next be emailed to the user role group.
Date Range	Set the number of previous days, weeks, or months that the report should be calculated over.
Page Size	Set the page format size for the report.
Selected Reports	Click to add or to remove reports in this schedule.

4. Click to add reports to the schedule.
5. Select the report **Category**.
   - The **Name** list is refined based on the **Category** you select. For example, if you set **KPI** as the **Category**, the **Name** list includes all types of KPI summary reports included by default in the system.



6. Define the report **Name** and any other required options.
   - Based on the **Name** you select, the options to create a trend report or define the results by specific parameters (for example, customer name or item type) are shown.
7. Click **Add**.
   - Repeats the above steps to associate all the required reports with the scheduled reports email.
8. Click **Test**, if required.



9. Search and select the user who should receive the test report.
10. Click **Test**.
    - The system sends a test copy of the report to the defined user with the test interval range based on **one** day, week, or month, not the actual number defined in the **Previous** field for the scheduled reporting period.
11. Click **Save**.
    - Repeat the above process for all relevant user roles.

AMIE Mappings for Servers

The Asset Management Import Engine (AMIE) integrates with the following inventory management products:

- Centennial Discovery 2005 and 9
- Express Software Manager 9.0 and 9.5
- LANrev 6.9+ / Absolute Manage 6.0 / LANrev 5.1
- HP Universal CMDB 8.0
- LANDesk 8.5, 9.0, and 9.0 (Hardware)
- LANrev 5.1
- LOGINventory 4.3+
- Manage Engine Desktop Central 7.0
- Microsoft SMS 2003 SP1 and Microsoft SCCM 2007
- Spiceworks 4.0+
- ZENworks Asset Management 6.5+
- ZENworks Configuration Management 11.1 and 11.1 (Hardware)

The following tables outline the default AMIE mappings for each server type.

Centennial Discovery 2005 and 9

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"Hardware.size"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"Hardware.size"
VALUE_PREFIX	""
VALUE_SUFFIX	"KB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"Client.macAddr1"
VALUE_PREFIX ""	
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"Client.ipaddr1"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Hardware
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"Client.sysMachine"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"Hardware.driver"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"Products.versionName"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Express Software Manager 9.0 and 9.5

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	“machinehardware.c_processor”
VALUE_PREFIX	""
VALUE_SUFFIX	"Mhz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	“machinehardware.c_ram“
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"

Item Category	Hardware
VALUE	“machine.nicaddress“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	“machine.ipaddress”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	“machine.name”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	“machinehardware.machineserialnumber”
VALUE_PREFIX	""
VALUE_SUFFIX	""

LANrev 6.9+ / Absolute Manage 6.0

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"computer.PROPCPUSPEED"
VALUE_PREFIX	""
VALUE_SUFFIX	"Mhz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"computer.PROPPHYSICALMEMORYSIZE"
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"computer.PROPPRIMARYMACADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"

Item Category	Hardware
VALUE	"network.PROPIPADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"network.PROPWINHOST"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"computer.PROPMACHINESERIALNO"
VALUE_PREFIX	""
VALUE_SUFFIX	""

HP Universal CMDB 8.0

Item Category	Hardware
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"CDM_NT_1.A_NT_PHYSICAL_MEMORY"
VALUE_PREFIX	"B"
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"CDM_HOST_1.A_HOST_HOSTNAME"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD1 = "Path"	
FIELD	"field1"
VALUE	"CDM_APPLICATION_1.A_APPLICATION_PATH"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"CDM_APPLICATION_1.A_APPLICATION_VERSION_NUMBER"
VALUE_PREFIX	""
VALUE_SUFFIX	""

LANDesk 8.5, 9.0, and 9.0 (Hardware)

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"Processor.mhzSpeed"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"Memory.bytesTotal"
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"NetworkSoftware.nicAddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"TCP.address"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"Computer.deviceName"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"Computer.compSystem.serialNum"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD1 = "Path"	
FIELD	"field1"
VALUE	"software.path"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"FileInfo.version"
VALUE_PREFIX	""
VALUE_SUFFIX	""

LANrev 5.1

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	“hardware_info.CPUSpeed“
VALUE_PREFIX	""
VALUE_SUFFIX	"Mhz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	“hardware_info.PhysicalMemorySize”
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	“hardware_info.PrimaryMACAddress“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	“network_adapter_info.IPAddress“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	“network_adapter_info.WinHost“
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Hardware
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	“hardware_info.MachineSerialno”
VALUE_PREFIX	""
VALUE_SUFFIX	""

LOGINventory 4.3+

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"LI_CUP.LI_NAME"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"LI_SYSTEM.LI_PCMEMORY"
VALUE_PREFIX	""
VALUE_SUFFIX	"MB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"LI_NET.LI_MACADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"LI_NET.LI_IPADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"LI_PCINFO.LI_PCNAME"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"LI_SYSTEM.LI_SERIAL"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"LI_SOFTWARE.LI_VERSION"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Manage Engine Desktop Central 7.0

Item Category	Hardware
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"invcomputer.TOTAL_RAM_MEMORY_MB"
VALUE_PREFIX	"MB"
VALUE_SUFFIX	""
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"resourcemacip.MAC_ADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"resourcemacip.IP_ADDRESS"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"invcomputeros.SERIAL_NUMBER"
VALUE_PREFIX	""
VALUE_SUFFIX	

Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"invsw.SOFTWARE_VERSION"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Microsoft SMS 2003 SP1 and Microsoft SCCM 2007

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"Processor_DATA.currentClockSpeed0"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"PC_Memory_DATA.totalPhysicalMemory0"
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"Network_DATA.macaddress0"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	"Network_DATA.ipaddress0"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	"Computer_System_DATA.propName0"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	""
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"SoftwareProductMap.productVersion"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Spiceworks 4.0+

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	“devices.processor_type“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	“devices.memory”
VALUE_PREFIX	""
VALUE_SUFFIX	"B"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	“devices.mac_address”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	"field4"
VALUE	“devices.ip_address”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	"field5"
VALUE	“devices.name”
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	“devices.serial_number”
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Printers & Scanners
FIELD5 = "IP Address"	
FIELD	"field5"
VALUE	“devices.ip_address“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Serial Number"	
FIELD	"field6"
VALUE	“devices.serial_number”
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Network Infrastructure
FIELD5 = "IP Address"	
FIELD	"field5"
VALUE	“devices.ip_address“
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Serial Number"	
FIELD	"field6"
VALUE	“devices.serial_number”
VALUE_PREFIX	""
VALUE_SUFFIX	""

ZENworks Asset Management 6.5+

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"NC_CPU.speed"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"NC_Workstation.totalMemory"
VALUE_PREFIX	""
VALUE_SUFFIX	"MB"
FIELD3 = "MAC Address"	
FIELD	"field3"

Item Category	Hardware
VALUE	"NC_Workstation.lanaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	" field4"
VALUE	" NC_Workstation.ipaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	" field5"
VALUE	" NC_Workstation.machinename"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD6 = "Platform"	
FIELD	"field6"
VALUE	"Windows"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"NC_Workstation.serialNumber"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"NC_Product.model"
VALUE_PREFIX	""
VALUE_SUFFIX	""

ZENworks Configuration Management 11.1 and 11.1 (Hardware)

Item Category	Hardware
FIELD1 = "CPU"	
FIELD	"field1"
VALUE	"NC_CPU.speed"
VALUE_PREFIX	""
VALUE_SUFFIX	"MHz"

Item Category	Hardware
FIELD2 = "RAM"	
FIELD	"field2"
VALUE	"NC_Workstation.totalMemory"
VALUE_PREFIX	""
VALUE_SUFFIX	"MB"
FIELD3 = "MAC Address"	
FIELD	"field3"
VALUE	"NC_Workstation.lanaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD4 = "Network Address"	
FIELD	" field4"
VALUE	" NC_Workstation.ipaddress"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD5 = "Network Name"	
FIELD	" field5"
VALUE	" NC_Workstation.machinename"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD7 = "OS Version"	
FIELD	"field7"
VALUE	" NC_Workstation.osmodel"
VALUE_PREFIX	""
VALUE_SUFFIX	""
FIELD10 = "Serial Number"	
FIELD	"field10"
VALUE	"NC_Workstation.serialnumber"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD20 = "Platform String"	
FIELD	"field10"
VALUE	"NC_Workstation.osproduct"
VALUE_PREFIX	""
VALUE_SUFFIX	""

Item Category	Software
FIELD3 = "Version"	
FIELD	"field3"
VALUE	"NC_Product.model"
VALUE_PREFIX	""
VALUE_SUFFIX	""

AMIE Customized Mapping

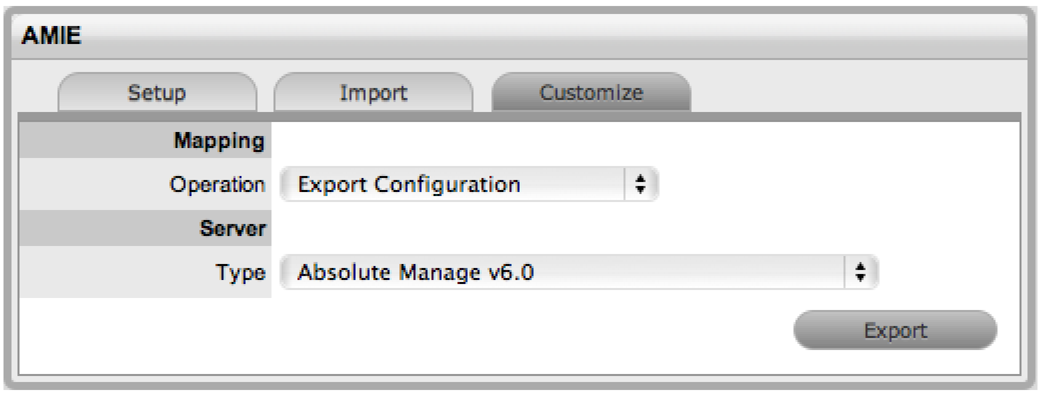
The customized mapping functionality provides you with greater control over the item type and category information accessed during the item import process. This functionality allows you to customize queries by defining parameters for importing items.

Exporting the Parameters File

Before you can import items into LiveTime, you must define the parameters of the items to import in an XML file, which you can generate from the application.

→ To export the parameters file:

1. Go to **Setup > AMIE > Customize**.



2. From the **Operation** list, select **Export Configuration**.
3. Select the type of server that contains the items you want to import into LiveTime.
4. Click **Export**.
   - The system generates an XML file, which you can save in a preferred location.

Customizing the Parameters File

To customize the item import, you must modify the parameters file you generated in the previous procedure.

→ To modify the parameters file:

1. In the text editor of your choice, open the XML file you generated from LiveTime.
2. Modify the properties as required.
   - The example below explains how you can customize a Centennial 2006 6.1 configuration.

Server Type Identifier

The first line within the XML file displays the following three fields:

<IMPORT_DEFN SERVER="Centennial" VERSION="2006 6.1" AUTHOR="Ivanti">

They identify an entry for an asset management server type. By modifying these fields, you can create another configuration for Centennial 2006 6.1; for example:

<IMPORT_DEFN SERVER="Centennial" VERSION="2006 6.1 **(Bob's Config)**"
AUTHOR="**Bob**">

This newly configured name will be the **Server Type** listed as an option when setting up the Asset Management Import Engine (AMIE).

Item Categories

The configuration mapping file is divided into "blocks" of item categories. In each block, you can define a number of instructions to execute during AMIE's import process. For example:

```
<ITEM CATEGORY="Hardware" ID_KEY_FORMAT="Client.Client">
```

- **"ITEM CATEGORY"** instructs AMIE to import all items within the defined XML block as generic “Hardware”. If you want to be more specific about your import for Hardware, you could break this category down into sub-categories; for example: “Computer”, “Printer”, and “Network Peripheral”.
- Assuming the selected asset management server supports the inventory control of these individual categories, defining an XML block for each category allows you to import each hardware item as a “Computer, “Printer”, or “Network Peripheral”.
- The **”ID_KEY_FORMAT”** attribute illustrates the format of the primary key field for this category in the asset management database. In the example, “Client.Client” says that the “Client” column of the “Client” table contains the primary key for your hardware.

NOTE This attribute only affects systems that support the feature of manually editing the **Item Number** field (when the **Edit Item Numbers** option is enabled in **Setup > Privileges > System**). To use editable item numbers when AMIE is enabled, the **Edit Asset Mgmt IDs** option must also be set to **Yes**.

Item Properties

Item properties are typically the fields that describe the item details, such as “CPU”, “RAM”, and “Serial Number”. The instructions to retrieve property data are defined in the **"<QUERY ...>"** and **"<ITEM_PROPERTY ...>"** elements.

"<QUERY>" element:

- Define the **"QUERY"** property to locate the table data.
- For example, the query below retrieves the "CPU" data for hardware. The **"QUERY NAME"** (cpu) is used to reference the property field as described later.

```
<QUERY NAME="cpu">SELECT cpu FROM com.livetime.assetimport.Hardware
cpu WHERE cpu.propClient = :ASSETID and cpu.propHardwareType = 4</QUERY>
```

"<ITEM_PROPERTY>" element:

- Define the **"ITEM PROPERTY"** to extract column data for the above query.
- Each of these entries maps an item property from the asset management server to LiveTime. For example, the value in the CPU field of the asset management server is mapped to the CPU field of the application database.

```
<ITEM_PROPERTY FIELD="field1" VALUE_PREFIX="" VALUE="cpu.propAsize"
VALUE_SUFFIX="MHz" TYPE="LOOKUP" />
```

The following table contains an explanation for each of these attributes:

Attribute	Description
ITEM_	Name of the field that exists in the system database. The field "field1" for the

Attribute	Description
PROPERTY FIELD	"Hardware" item category maps to the "CPU" field. For a current entity-relationship diagram that includes these database fields, please contact Global Support.
VALUE_ PREFIX	Prefixes the actual value returned from the asset management server database.
VALUE	Can either be a hard-coded value, or a value you want to import from the asset management server database (see the TYPE attribute below). The example defines a string using the query.property notation, which references the actual value in the database. In the example, the VALUE attribute is "cpu.propAsize": • "cpu" - The query name where the results are contained (the "Hardware" table). • "propAsize" - The property name where the actual CPU value is stored (the "SIZE" column). In most cases, the property name is identical to the database column name, with the first letter capitalized followed by lowercase characters. Property names are always pre-appended with the word “prop” to ensure uniqueness in the import process. Take these guidelines into consideration when defining custom properties.
VALUE_ SUFFIX	Suffixes the actual value returned from the asset management server database. In the example, this value is "Mhz" as it represents the CPU field. Suffixing "Mhz" in this case gives the imported value more meaning.
TYPE	"LOOKUP" - Retrieves the data from the VALUE attribute as specified using the query.property notation. "QUOTED" - Treats the VALUE attribute as a hard-coded value.

NOTE Query entries allow AMIE to retrieve necessary data from the asset management server database. You can write AMIE queries in a query language called HQL, which is similar to SQL. For more information on HQL and some examples on how to write HQL queries, see http://docs.jboss.org/hibernate/orm/3.3/reference/en/html/queryhql.html.

Item Relationships

When defining multiple item category types to import, for example "Hardware" and "Software", you can specify how they are related. Configuring these properties will allow the system to import items with predefined relationships.

NOTE Only children items should contain this information, as the system defines relationships from the bottom up.

In this example, the Centennial 2006 6.1 software relationship block is as follows:

```
<RELATIONSHIP RELATED_TO="Hardware" TO="is a parent of" NAME="Parent of
/ Child of" FROM="is a child of" CLASS="1000" INHERIT_OWNERSHIP="1">
<NATIVE_ID_QUERY>SELECT computer.client FROM
com.livetime.assetimport.Client computer WHERE computer.propAddress is
not null and computer.client :SW_ASSETID.0</NATIVE_ID_QUERY>
</RELATIONSHIP>
```

This "Parent of / Child of" relationship already exists as one of the factory-supplied relationship types. However, you can create and map any newly defined relationships as part of the import process.

The following table contains explanations for the attributes and child elements:

Attribute	Description
RELATED_TO	The item category another item category can relate to. For example, you can relate "Software" to "Hardware".
TO	A label describing the relationship from the parent to the child. For example: [Hardware] is a parent of [Software]
NAME	The name of the relationship.
FROM	A label describing the relationship from the child to the parent. For example: [Software] is a child of [Hardware]
CLASS	"1000" - Hierarchical-based relationship. "2000" - Connection-based relationship.
INHERIT_ OWNERSHIP	"1" - Propagates ownership data (customer and organizational unit) from each parent item to all of its children. "0" - Relationship does not inherit parent ownership data.

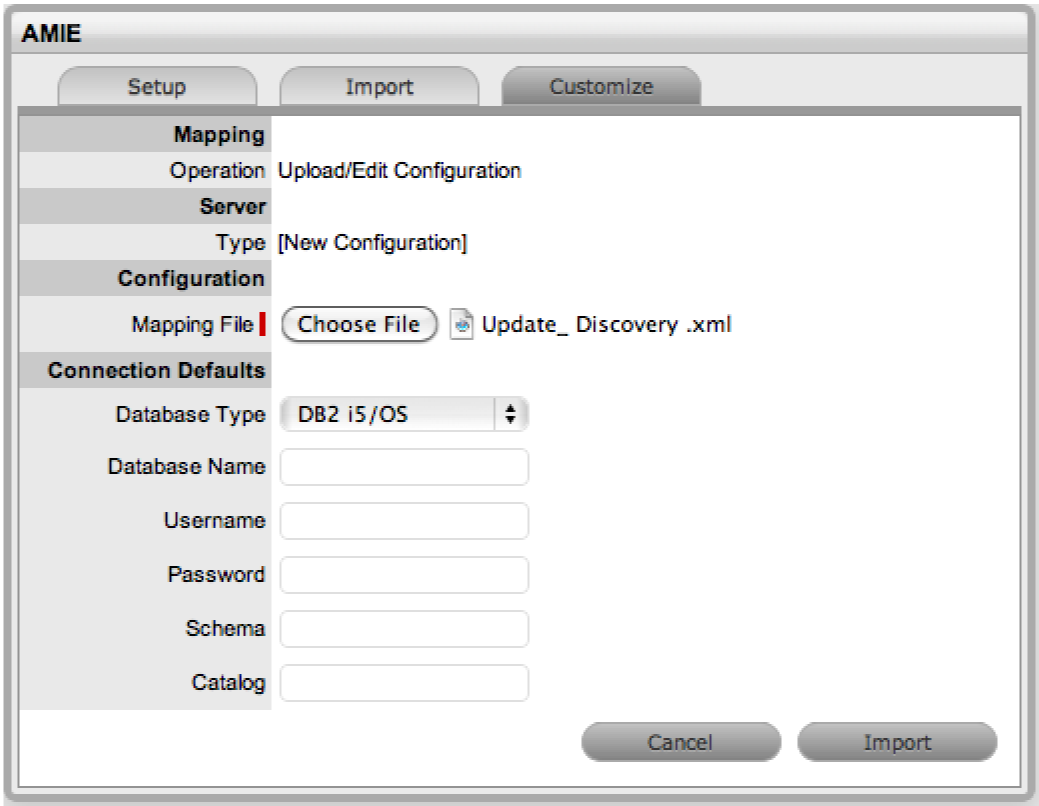
Uploading and Editing the Parameters File

After you have customized the parameters file, you need to import it back into the system to enable LiveTime to import the items using your specifications.

→ To import the parameters file:

1. Go to **Setup > AMIE > Customize**.
2. From the **Operation** list, select **Upload/Edit Configuration**.

3. Select **[New Configuration]** from the **Type** list.
4. Click **New**.
5. Click **Choose File**.
6. Search for and upload the configured XML parameters file.



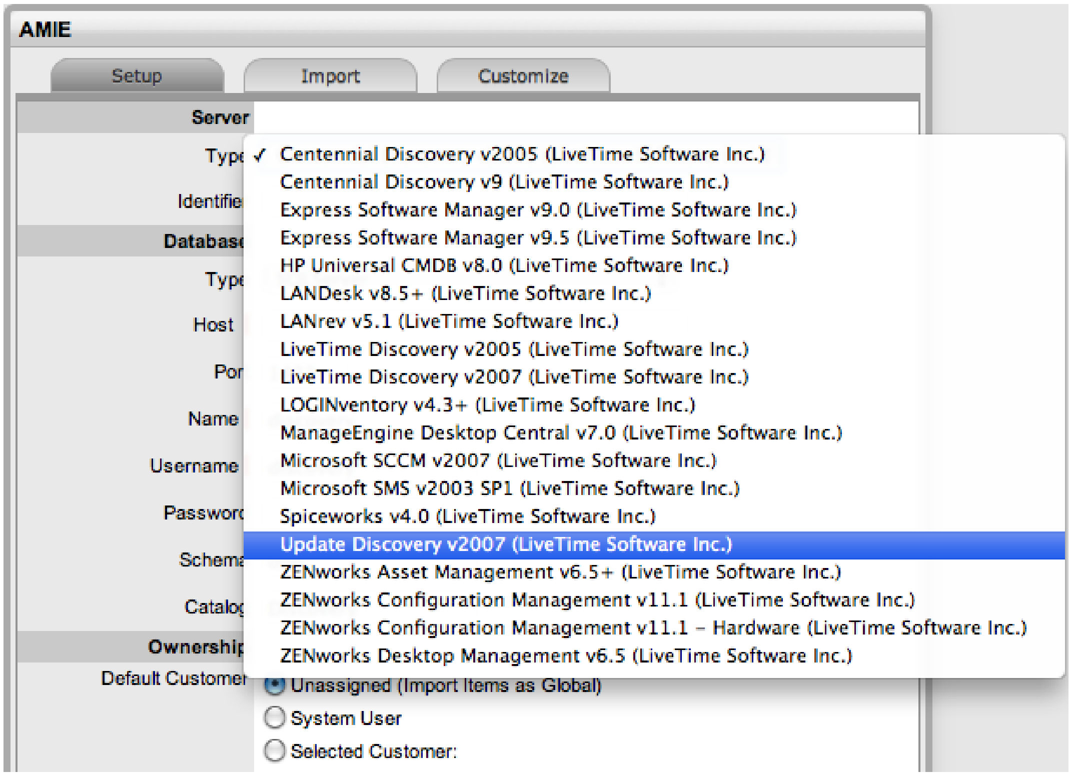
7. Enter the **Connection Defaults** for the database type, name, username, password, schema, and catalog, if necessary.
   - What you enter here will be the pre-set values when selecting and mapping the new server type.
8. Click **Import** to import the XML file.
   - When the import is complete, the new configuration file appears as a new server type.
9. You can modify or update the server connection details by clicking **Edit** and making the required changes.
10. Click **Save**.

Using the Customized Server Type

After you import your customized server configuration into the system, you can select it as an option when configuring AMIE in the **Setup** tab.

→ To use the new server type:

1. Go to **Setup > AMIE > Setup**.
2. Click **New**.
3. From the **Type** list, select the customized server.



4. Configure the **Database**, **Ownership**, **Discovery**, and **Synchronization** fields.
5. Click **Test** to confirm the connection, then **Save** when complete.

For more information on importing items using AMIE, see Importing Items Using Database Mapping.

Managing Items Using Database Mapping (AMIE)

You can synchronize multiple asset management data sources with LiveTime. When one or more applications are configured within AMIE, they are listed within **Setup > AMIE > Setup**.

Importing Items Using Database Mapping

→ To import items using database mapping:

1. Go to **Setup > AMIE > Setup**.
2. Click **New** and customize the **Server**, **Database**, **Ownership**, **Discovery**, and **Synchronization** fields:

Setting	Description
Server	
Connection	Select whether you are importing data from a relational database management system (RDBMS) or from Absolute Computrace.
Type	Select the type of inventory management product that you are importing from.
Identifier	An identifying label that is used in list views to inform users about the source of an item.
Database (available fields may vary depending on database type)	
Type	Select the database type.
Host	Enter the host name or IP address.
Port	Enter the port number for the database server.
Path	This option is visible when the selected database type stores its data in a file rather than a network-connected database. Enter the accessible path to the data file for the database you are mapping. This value can be one of the following: • A local file path (on your local machine) • A mapped network drive file path (in an entirely Windows environment) • An HTTP/FTP/FTPS fully qualified URL accessible to the server so that LiveTime can read the data file and import the content. The URL path in this case must begin with a protocol and end with a trailing "/", and will typically include a username and password, for example: ftp://username:password@[TARGET_HOST]/[DATA_FILE_DIR]/
Name	Enter the database name.
Username	Complete user name details.
Password	Complete password details.
Schema	Enter the schema type.
Catalog	Enter the catalog name. Typically this value would be the name of the database.
Notification (only visible if "Control CMS via RFC" is enabled)	
Email RFC's to Tech?	Select this option if technicians are to be notified of generated change requests.
Ownership	

Setting	Description
Import as Global	Select this option if items are to be globally owned.
Overwrite	Some database types can report only the last logged-in user as the item owner, while others allow for manual owner assignment. Set this option to **No** to retain the owners reported by the AMIE source during synchronization or **Yes** to replace the reported owners with the last detected user each time synchronization occurs.
System User	Select this option to assign imported items to the system user.
Selected Customer	Select this option to assign imported items to a specific customer.
Ignore Domain Info	Select this checkbox if the system is to disregard domain details attached to the user name inside the AMIE source when assigning an owner.
Discovery	
Auto Create New Items	This option is only visible when a single AMIE source is defined within AMIE. When enabled, items are automatically created upon synchronization, relative to the **Control CMS via RFC** setting within the **Setup > Privileges > Requests** tab. If disabled, a snapshot of imported asset information is listed within the **Configuration > AMIE Snapshots** tab of the User Portal.
Merge on Number Clash	This option is relevant when the system is importing items from multiple AMIE sources that use unique item numbers, making number conflicts possible between the sources during import. Enable this option to automatically associate an imported data snapshot that has item number conflicts with existing items in the LiveTime CMDB that have matching pre-existing item numbers.
Synchronization	
Interval	Choose a synchronization interval. This field can be left as **Never** if the database is synchronized manually. NOTE Synchronization times vary depending on the connection speed with the external service and the database size.
Next Start	Select the date and time you want synchronization to next start.

3. Click **Test** to initiate a connection and test the setup.
   - If a connection is not made, a system message lets you know which part of the configuration was not successful.
4. Click **Save**.
5. To execute the import, click **Import**.
   - After the import is complete, an alert provides the results of the import.

- 

AMIE Import Alert

The system generates alerts for the administrator after the AMIE synchronization is completed. The Import Alert summary displays the following:

- The details of the system that the synchronization was run against, as it is possible to import from multiple sources
- The number of assets found in the datasource
- The number of assets automatically created if a single datasource is configured in AMIE and the auto-create option is enabled; or if the auto-create option is disabled and items already exist in the system, the number of items that were updated
- The number of AMIE snapshots successfully imported, with a breakdown of new items added and number of items updated

Delete Options and AMIE

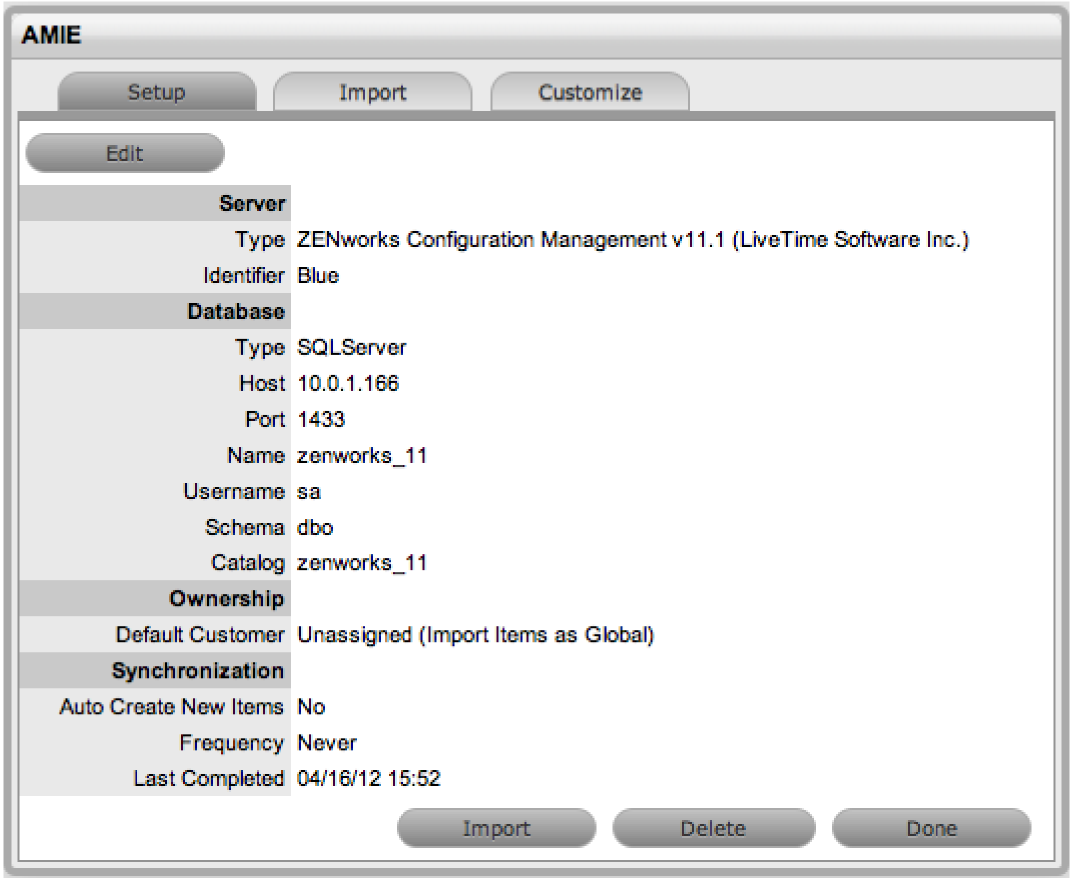
You can delete AMIE configurations through the list view from the **Setup > AMIE > Setup** tab, or by clicking on the **Server** link within the list view, which opens the expanded view for the specific asset management tool.

When you click the **Delete** button in the list view of the **Setup > AMIE > Setup** tab, global-level "delete" flags are applied to all AMIE-managed items stored in the system; however, the server details configured in AMIE and their associated snapshots are retained.

The imported items that you delete are not completely removed from the database but are flagged as not available. By not erasing the items completely, historical data is maintained and allows you to re-enable these items in the future. Note that the item types associated with the deleted imported items are not disabled in the application.

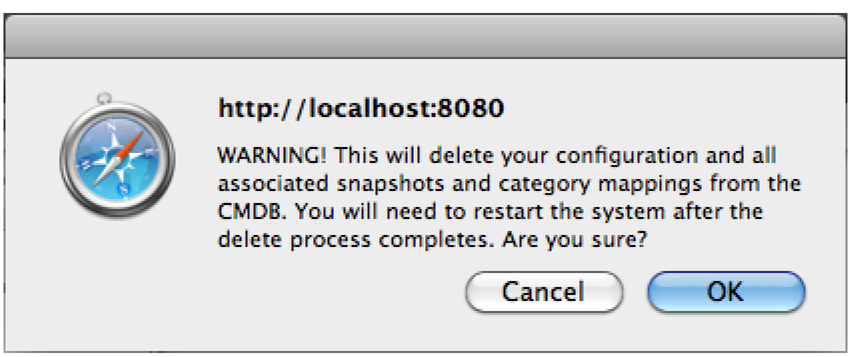
If you click the **Delete** button within the expanded view for the specific asset management datasource, a configuration-level deletion of the configured server and any related AMIE snapshots occurs.

NOTE You must restart the application after performing either deletion operation to allow the changes to take effect and prevent unpredictable behavior of the system.

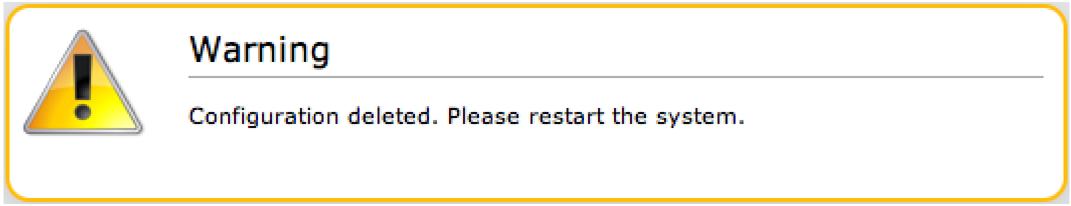


→ To delete the server configuration within AMIE and any related snapshots:

1. Go to **Setup > AMIE > Setup**.
2. Select the name of the server configuration you want to delete.
   - The expanded view of the server configuration opens.
3. Click **Delete**.
   - A popup message opens asking you to confirm the deletion action.



4. Click **OK**.
   - A warning message is shown informing you to restart the application server to complete the deletion process.

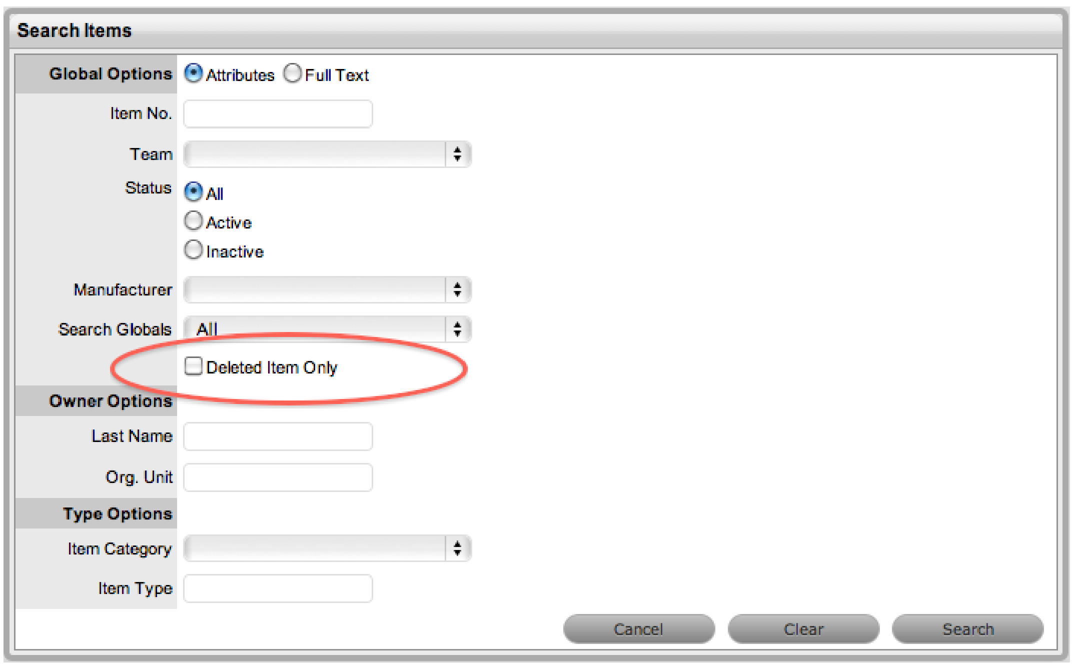


Re-enabling Deleted Items

To re-enable deleted items, you can initiate an item search on deleted Items and restore them within the User Portal.

→ To re-enable a deleted item:

1. In the User Portal, go to **Configuration > Items**.
2. Click **Search**.
   - The **Search Items** page opens.



3. Enter a search term.
4. Select the **Deleted Item Only** option.
5. Click **Search**.
   - A list of matching items is shown.
6. To re-enable an item, select the **Item No**.
7. Click **Enable**.

Managing Items Using a CSV File

To import items using a CSV file, you can download and populate a CSV template that contains all available fields. LiveTime uses a field mapping wizard to match fields in the template to those in the system. To download the template, go to **Setup > AMIE > Import**. See Downloading an Item .CSV Template for more information on configuring the CSV file.

Before Importing a CSV File

To successfully import an item, you must map the following fields:

- Team/s
- Status

The teams within the CSV file must be created in the system before you can associate them with an item as part of a CSV import. A supervisor creates teams in the **User > Teams** tab of the User Portal.

The system imports items based on category (for example, hardware and software), which the supervisor must configure within the **Configuration > Categories** tab before conducting a CSV import. The categories configuration defines the details recorded in the item to be imported into the system. You must create separate CSV files based on the categories configured, which you can then individually upload into the application.

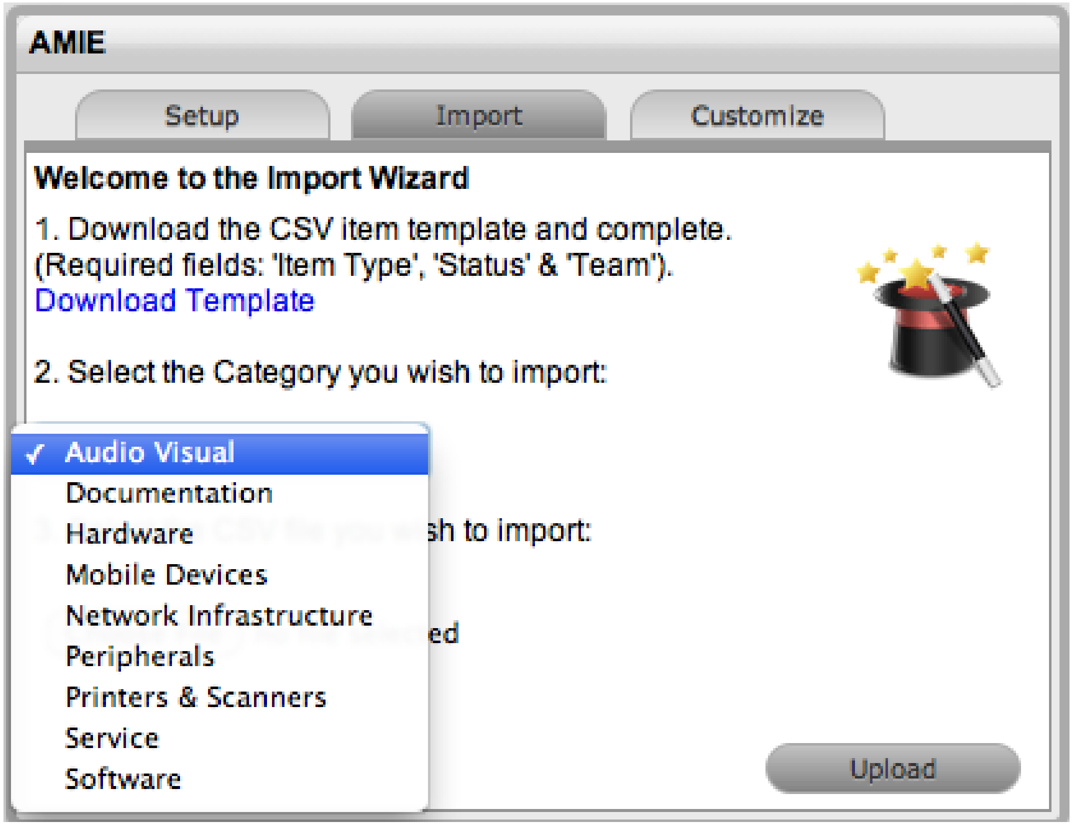
For items imported with owners, the Username in the CSV file must match the Username within LiveTime. If the owner does not exist in the system, the imported item becomes a global item.

NOTE If you want relationships to be created between items on import, you should import parent items first. If you want to use the system-generated item number for the parent item, you need to include it in the **Parent Item Number** field of the related items when you import them.

Importing Items

→ To import items with a CSV file using the Import Wizard:

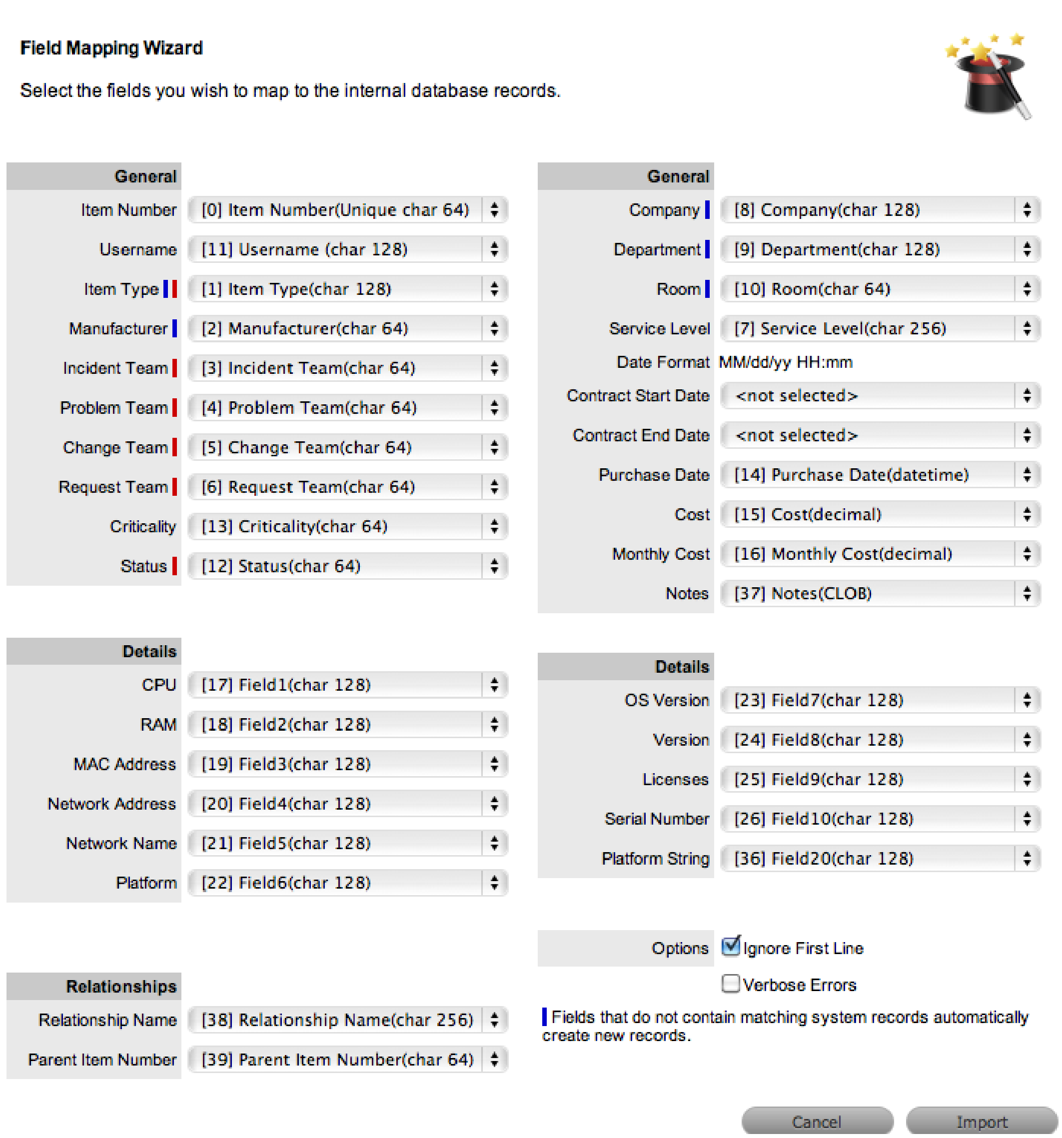
1. Go to **Setup > AMIE > Import**.



- To access a template that illustrates the fields the application maps and their data types (see below), click the **Download Template** link.
- The following fields should be visible in the CSV file:
- Item Number(Unique char 64), Item Type(char 128), Manufacturer(char 128), Incident Team(char 64), Problem Team(char 64), Change Team(char 64), Request Team(char 64), Company(char 128), Department(char 128), Room(char 64), Username (char 64), Status (char 128), Criticality(char 64), Purchase Date(datetime), Cost(decimal), Field(s)[1-40](char 256), Notes(CLOB), Relationship Name(char 256), Parent Item Number(char 64)
- Note the following:
- The 'FieldX' (1-40) labels above will reflect the actual field names as defined in the selected CMDB category
- The "char ###" designation in parentheses after each field name signifies what type of data the import utility expects to see in each field. For instance, "Item Type(char 128)" means that the item type field cannot exceed 128 characters.
- Fields marked as "Unique" must be unique in the system.
- "Room" field details must be in the following format: COMPANY-DEPARTMENT;Room
- When creating a CSV file for a category, to determine the field number of a configured custom field, select the **System defined Ordering** option within the **Category** tab of an item category. The field labels are then listed in sequential order from one to forty.

2. Select the category of the items you are importing.
   - The list consists of all categories that the supervisor has created in the **Configuration > Categories** tab of the User Portal.
3. Enter the location of the completed CSV file, or use the **Browse** button to select the file.

4. Click **Upload**.
   - The Field Mapping Wizard opens. Fields that you can map to the CSV file are available in the lists.



5. Review and map the fields from the CSV file.

Field Mapping Wizard	
General	
Item Number	Unique item number of the item, which the system generates. Alternatively, you can define the item number in the CSV file yourself if the **Edit Item Numbers** option is enabled at **Setup > Privileges > Items**.
Username	User name of the customer owning the item.
Item Type	Item type of the item.
Manufacturer	Sets the manufacturer details of the item.
Incident Team	Incident team assigned to the item.

Field Mapping Wizard	
Problem Team I	Problem team assigned to the item.
Change Team I	Change team assigned to the item.
Request Team I	Request team assigned to the item
Criticality	Sets the default criticality (Critical, High, Moderate, Low, Very Low) for the item. This field is optional.
Status I	Default status of the item.
Company I	Company owning the item.
Department I	Department owning the item.
Room I	The location of the item. The data format in the CSV file to import this information must be: COMPANY-DEPARTMENT;Room
Service Level	Service level agreement assigned to the item.
Date Format	Displays the date format required for the contract details to be imported successfully.
Contract Start Date	Sets the start date of a contract associated with an item.
Contract End Date	Sets the end date of a contract associated with an item.
Purchase Date	Date the item was purchased.
Cost	The cost of the item.
Monthly Cost	Sets the service cost on per month basis for the item.
Notes	Free text to add notes to the item. This field is optional.
Details	
Fields 1 to 20	Custom fields created for the category are available here for mapping to the item based on information included in the CSV file.
Relationships	
Relationship Name	Defines the description of the relationship between the item set in the Parent Item Number field.
Parent Item Number	Identifies the item with which the imported item is related using the item number.
Options	
Ignore First Line	Option to ignore the first row in the CSV file upon import.
Verbose Errors	Detailed description of any errors that occur during the import process.

- I = *Information that needs to exist in the system before the import*
- I = *Fields that are mandatory*

NOTE If you want to create relationships between items upon import, you should import parent items first. If you are using the system-generated item number for the parent item, it needs to be included in the **Parent Item Number** field of the related items when you import them.

6. Select the **Ignore First Line** checkbox if the first line of the imported CSV file has field headings.

- Leave the checkbox clear if the CSV file begins with usable data.

7. Select the **Verbose Errors** checkbox to record a detailed description of any errors that occur during the import.
   - Leaving the checkbox clear returns a summarized error report.
8. Click **Import** to bring the mapped field data into the system.
   - The **Item Import** screen shows you the results of the import.
9. Click **Done**.

Configuring Items After the Import

During the item import, the system creates elements that do not already exist in the database for fields marked with a blue line within the Field Mapping Wizard, including the following:

- Item Type
- Warranty
- Organizational Units

After an import, you need to further configure all item types that the system automatically created.

→ To complete item type configuration:

1. In the User Portal, go to **Configuration > Types**.
2. In the **Item Types** screen, select the newly created item type.
3. In the **Type Information** screen, click **Edit** and complete the following fields:

Item Type	
Name	Name of the item type.
Manufacturer	The manufacturer of the item type. You can create, edit, and delete manufacturers by using the **Edit** and **New** buttons beside the **Manufacturer** list.
Item Category	Signifies the type of item. (**Hardware**, **Software**, and **Service** are the default types, but a supervisor can create more if required.)
Identifier	Available options are drawn from the fields defined for the item category selected. Although this information is not required, the identifier is used to differentiate similar items that may be in use throughout an organization. For example, if an organization uses the same printers for all departments, an item category of "Location" could be configured for the item details and this category could also be used as a secondary identifier for the printer item.
Criticality	Rates the degree of importance of an item type within an organization, which you can adjust on a per item basis. The "impact" of a request is initially pulled from the criticality of the item, but can be adjusted within the **Request Information** screen if required. Requests logged through the Customer Portal use the criticality of the item to set the priority of the request. The Incident Analyzer, if enabled in **CMS > Incident Analyzer**, can apply the criticality to automatically detect problems. The minimum criticality level can also be used to determine the offline items that appear on outages pages, if the outages pages are enabled in **Setup > Privileges > System**.

Item Type	
Icon	To customize the icon for the specific item type, click .
Unit Price	The per-unit price of the item type. This field is optional and is used for asset management purposes. See Finance Role for more information.
Instance Total	Number of instances owned by the organization.
Assigned	Number of instances assigned to customers as items.
Hidden	Select **On** to ensure customers cannot view this item type within the list in the Customer Portal. If all item types use this selection, the **Item Type** list is completely removed from the Portal. Items created using item types with this option enabled do not allow customers to generate requests against them in the Customer Portal, nor are customers able to view or receive updates about requests that a user logs against hidden items.
Creation	Enabling this option gives customers using the Customer Portal the ability to create new items using this item type if they have been granted the ability to create items in **Setup > Privileges > Customer**. (This option is not available when the **Hidden** option is enabled.)
Ignore Share	Enabling this option overrides the system-level option for sharing requests raised against items of this type. Requests raised against items of this type are not available in the Customer Portal when viewing shared requests is enabled.
Add Forum Topic	Creates a forum topic using the item type name. This option is only available when you create a new item type.
Incident Default	The team of technicians assigned to support incidents received related to the item type. See Teams for more information.
Problem Default	The team of technicians assigned to support problems received related to the item type. See Teams for more information.
Change Default	The team of technicians assigned to support change requests received related to the item type. See Teams for more information.
Request Default	The team of technicians assigned to support service requests received related to the item type. See Teams for more information.
Service Level Default	The default service level for the item type. When billing is enabled, service levels without a cost are listed as an option. The service level with an associated cost can be applied when an item is created, which ensures item contract payment is processed.
Support Levels	All service level agreements assigned to the item type, which are available as options when a request is created for an item of this type. SLAs listed here are used within the **Costs** tab of service types to forecast break even points on the service relative to the number of users.
Find SLA (Name)	Use this option to assign multiple SLAs to the item type. Click to view all SLAs or refine the search by entering a specific name. Select the SLA hyperlink to assign the SLA to the item type. Click to clear the search field.

4. Click **Save**.
5. Click the **Classification** tab to create problem classification for this item type.

- Click the item type name to continue configuration.

Assigning Multiple Companies and Departments to an Item

You can also use the CSV file import to assign more than one company and department to an item, if required. To assign multiple companies within the "Company" column of the CSV file, enter the company names separated by a semicolon (;). If a company does not exist in the system, or it has been deleted, the system will create it on import.

When importing multiple departments related to multiple companies, you must list the department related to the company in the same order as the companies and separated by a semicolon. For example:

Company field: comp1;comp2
Department field: dept1:depart2 or ;dept2 or dept1;

When you perform a CSV import, the system creates any departments that do not exist in the database or have been deleted.

To assign rooms to one of the locations of this multiple company/department assignment, you must enter the full details of the company and department into the column followed by a semicolon and the room number. Here is an example of the room import format:

Company Field:CompName1;CompName2
Department Field:Dept1;Dept2
Room Field: CompName1 - Dept1;Room1

Updating Item Information Using a CSV Import

To easily update multiple items that already exist within the system, you can import the updated information using a CSV file. For the update to be successful, the item number in the CSV file must match the item number in the system.

Follow the previous procedure in "Importing Items" and be sure to map the item number field correctly. If an item number is not included in the CSV file, the system creates a new item in the database.

Integrating with Endpoint Management

If your organization uses HEAT LANrev or Absolute Computrace to manage the IT assets or user endpoints in your environment, you can configure LiveTime to work seamlessly with these endpoint management systems.

After you complete the integration tasks, LiveTime users benefit from the following features:

- Seamless access to real-time asset management data
- More precise root-cause and impact analysis
- Ability to initiate endpoint actions (for example, Device Lock or Data Delete) on managed devices directly from the Service Desk
- Ability to manage asset-related events that are triggered outside of LiveTime

Integrating LiveTime with LANrev

Enabling the Connection to LANrev

→ To enable the connection to LANrev:

1. Go to **Setup > AMIE > Advanced**.
2. Select **LANrev** from the **Server** list.
3. Set the **Enabled** option to **Yes**.
4. Complete the following fields:

Field	Description
General Settings	
Connection Mode	Define how LiveTime connects to LANrev: either directly to the LANrev server or via the LANrev Web Admin component. Connecting via LANrev Web Admin allows several additional commands in the endpoiont action toolbox.
Server Address	Enter the address of the server hosting the instance of LANrev.
Server Port	Enter the port number for the LANrev server.
Username	Enter the username used to authenticate against the LANrev server.
Password	Enter the password associated with the specified username.
IP Field	Enter the identifier for the field within the **Details** tab of an item to be used for a device's IP address.
Hostname Field	Enter the identifier for the field within the **Details** tab of an item to be used for a device's Hostname.
Remote Enabled Field	Enter the identifier for the field within the **Details** tab of an item that indicates whether LANrev's remote control feature is enabled on a device.
Android Field	Enter the identifier for the field within the **Details** tab of an item that indicates whether the device is an Android device.
Remote Port Field	Enter the identifier for the field within the **Details** tab of an item that indicates the port to invoke the remote control feature on.
OnDemand Packages	Enable this option if you want customers to be able to install on-demand software packages available in LANrev directly from the Customer Portal.

Field	Description
Admin Console Link	Enable this option to provide users with a direct link within a request to open a specific device in the LANrev Admin console. Users must have LANrev Admin installed on their computer for this link to work.
Global Login	Are technicians sharing a single login or using their personal LANrev credentials for endpoint management
Item Actions	Is the endpoint action toolbox accessible from the item editor itself rather than only within a request context.

5. Click **Test** to initiate a connection to the LANrev server and test the setup.
   - If the connection is successful, the following message displays at the top right of the screen:
     LiveTime Connection Successful
   - If a connection is not made, the messages states which part of the configuration was not successful.
6. Click **Save**.

Mapping to the LANrev Database

→ To map to the LANrev database using AMIE:

1. After enabling the connection to the LANrev server, go to **Setup > AMIE > Setup**.
2. Click **New**.
3. Set the **Connection** option to **RDBMS**.
4. From the **Type** list, select the version of LANrev you are connecting to.
5. Complete the following fields:

Field	Description
Server	
Identifier	Enter an identifying label. In list views, this label informs users about the source of an item.
Database (available fields may vary depending on database type)	
Type	Select the type of database hosted on the LANrev server.
Host	Enter the host name or IP address.
Port	Enter the port number for the database server.
Path	This option is visible when the selected database type stores its data in a file rather than on a network-connected database. Enter the accessible path to the data file for the database you are mapping. This value can be one of the following: • A local file path (on your local machine) • A mapped network drive file path (in an entirely Windows environment) • An HTTP/FTP/FTPS fully qualified URL accessible to the server so that LiveTime can read the data file and import the content. The URL path must begin with a protocol and end with a trailing "/", and will typically include a username and password. For example:

Field	Description
	ftp://username:password@[TARGET_HOST]/[DATA_FILE_DIR]/
Name	Enter the database name.
Username	Enter the username.
Password	Enter the password.
Schema	Enter the schema type.
Catalog	Enter the catalog name. Typically this value is the name of the database.
Ownership	
Import as Global	Enable this option if you want to assign all imported items as global items, which are available to everyone.
Default Customer	Enter the customer to assign imported items to by default.
Default Org. Unit	Enter the organizational unit to assign imported items to by default.
Overwrite	This setting is relevant when ownership details for items imported from LANrev clash with existing ownership details in LiveTime. If set to **Yes**, the existing ownership details are overwritten with the new details. If set to **No**, the new owner of the item is added as an additional user in LiveTime.
Ignore Domain Info	Select this option if the system should disregard domain details attached to the username inside the AMIE source when assigning an owner.
Discovery	
Auto Create New Items	If enabled, items are automatically created upon synchronization, relative to the **Control CMS via RFC** setting within the **Setup > Privileges > Requests** tab. If disabled, a snapshot of imported asset information is listed within the **Configuration > AMIE Snapshots** tab of the User Portal.
Merge on Number Clash	This setting is relevant when the identifier of an item imported from HEAT LANrev matches that of an existing item in LiveTime. If set to **Yes**, the system considers the two items as the same item and associates the AMIE snapshot with the existing item. If set to **No**, the system treats the two items as distinct items.
Synchronization	
Interval	Set the time period the system uses to synchronize with the HEAT LANrev database. NOTE Synchronization times vary depending on the connection speed with the external service and the database size.
Next Start	Using the calendar, set the time and date the system should next synchronize with the HEAT LANrev database.

6. Click **Test** to initiate a connection to the HEAT LANrev database and test the setup.
   - If the connection is successful, the system displays a confirmation message.
   - If a connection is not made, the message states which part of the configuration was not successful.
7. Click **Save**.

Integrating LiveTime with Absolute Computrace

Integrating with Absolute Computrace involves multiple steps depending on your desired level of integration:

- **Enabling the connection to the Computrace server** – This step allows LiveTime to read data from Absolute Computrace. After establishing a connection, the system can retrieve alerts that Computrace generates (for example, when the lease on a device is near expiration). The system can then automatically generate requests prompting the Service Desk to address these alerts.
- **Mapping to the Computrace database using AMIE** – This step allows LiveTime to pull hardware and mobile device category items stored within Computrace. The system then generates configuration items to represent this data within LiveTime.
- **Configuring user access** – Users need to update their account settings with their Absolute Computrace credentials in the User Portal at **Home > My Account**. These credentials are required to ensure LiveTime adheres to the security policies of Absolute Computrace. For example, if a user has sufficient privileges to view the history of a device or perform endpoint actions on a device within Absolute Computrace, the user will have the same rights within the Service Desk.

  NOTE To perform endpoint actions from the Service Desk, technicians must have Security Administrator privileges within Absolute Computrace, and must adhere to existing security policies (for example, using required two-factor authentication).

Enabling the Connection to Computrace

➔ To enable the connection to the Computrace server:

1. Go to **Setup > AMIE > Advanced**.
2. Select **Absolute Computrace** from the **Server** list.
3. Set the **Computrace Enabled** option to **Yes**.
4. Complete the following fields:

Field	Description
General Settings	
Computrace Host	Enter the address of the server hosting Absolute Computrace Web Services gateway. This address is typically “https://secureapi.absolute.com”.
Username	Enter the username to authenticate against the Absolute Computrace server for retrieval of event data.
Password	Enter the password associated with the specified username.
OS Field	Enter the field number within the **Details** tab of an item to be used for a device’s operating system information.
Report Attachment Type	When a report is generated as a result of an endpoint action, the report is attached to the request after the action is completed. Select the report attachment type to include with the request.
Polling Enabled	Enable this option if you want the system to check the Computrace server for event data updates.
Polling Interval	Enter the time period (in minutes) the system uses to check the Computrace server for event data updates.

Field	Description
(mins)	
Request Type	Select the type of request the system generates when it retrieves a Computrace alert.
Request Customer	Select the user who the system assigns the generated requests to. If you select **(System User)**, the system places all generated requests in the assignment queue.
Customer Visible	Select whether customers can see requests the system generates as a result of Computrace alerts. When set to **No**, requests related to Computrace alerts, as well as their notifications, are not visible to customers.

5. Click **Test** to initiate a connection to the Absolute Computrace server and test the setup.
   - If the connection is successful, the following message displays at the top right of the screen:
     Successfully connected to Absolute Computrace
   - If a connection is not made, the message states which part of the configuration was not successful.
6. Click **Save**.

Mapping to the Computrace Database

➔ To map to the Computrace database using AMIE:

1. After enabling the connection to the Computrace server, go to **Setup > AMIE > Setup**.
2. Click **New**.
3. Set the **Connection** option to **Computrace.**
4. From the **Type** list, select the version of Computrace you are connecting to.
5. Complete the following fields:

Field	Description
Server	
Identifier	Enter an identifying label. In list views, this label informs users about the source of an item.
Host	Enter the address of the server hosting Absolute Computrace Web Services gateway (specified at **Setup > AMIE > Advanced**).
Username	Enter the username to authenticate against the Absolute Computrace server for retrieval of event data (specified at **Setup > AMIE > Advanced**).
Ownership	
Import as Global	Enable this option if you want to assign all imported items as global items, which are available to everyone.
Default Customer	Enter the customer to assign imported items to by default.
Default Org. Unit	Enter the organizational unit to assign imported items to by default.
Overwrite	This setting is relevant when ownership details for items imported from Absolute

Field	Description
	Computrace clash with existing ownership details in LiveTime. If set to **Yes**, the existing ownership details are overwritten with the new details. If set to **No**, the new owner of the item is added as an additional user in LiveTime.
Ignore Domain Info	Select this option if the system should disregard domain details attached to the username inside the AMIE source when assigning an owner.
Discovery	
Auto Create New Items	If enabled, items are automatically created upon synchronization, relative to the **Control CMS via RFC** setting within the **Setup > Privileges > Requests** tab. If disabled, a snapshot of imported asset information is listed within the **Configuration > AMIE Snapshots** tab of the User Portal.
Merge on Number Clash	This setting is relevant when the identifier of an item imported from Absolute Computrace matches that of an existing item in LiveTime. If set to **Yes**, the system considers the two items as the same item and associates the AMIE snapshot with the existing item. If set to **No**, the system treats the two items as distinct items.
Synchronization	
Interval	Set the time period the system uses to synchronize with the Computrace database. NOTE Synchronization times vary depending on the connection speed with the external service and the database size.
Next Start	Using the calendar, set the time and date the system should next synchronize with the Computrace database.

6. Click **Test** to initiate a connection to the Computrace database and test the setup.
    - If the connection is successful, the system displays a confirmation message.
    - If a connection is not made, the message states which part of the configuration was not successful.
7. Click **Save**.

Integrating with ZENworks

You can configure LiveTime to work seamlessly with ZENworks Configuration Management. As a first step, you can use ZENWorks as a provider for authenticating users and customers. On a day to day basis, users can leverage ZENworks' remote control and bundle management capability within a request, which helps increase users' efficiency and manage their workload.

Enabling Social Authentication

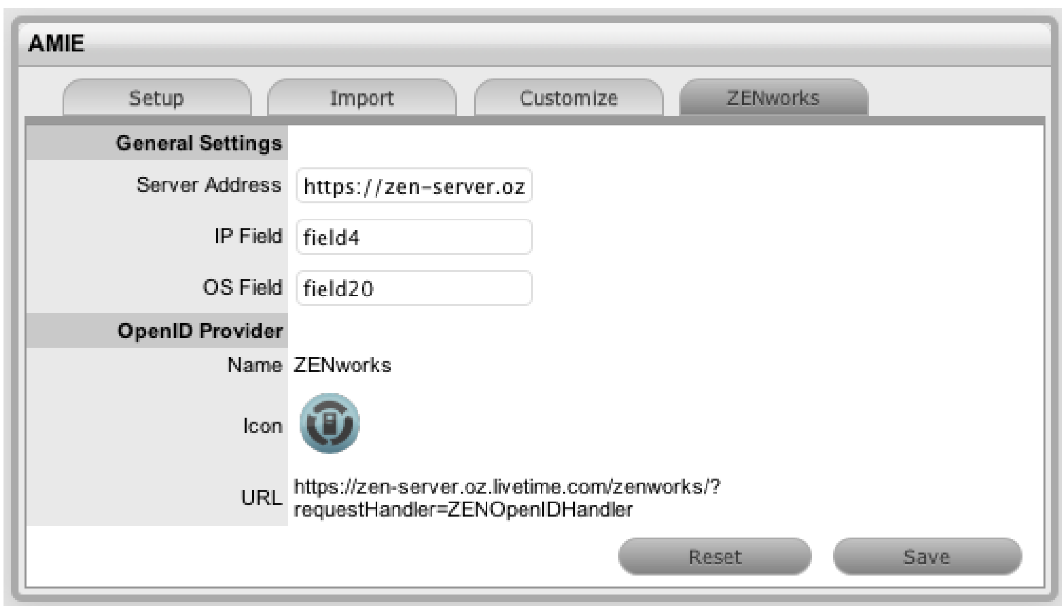
To enable authentication of users and customers through ZENworks, you must first enable the **Social Authentication** option within **Setup > Privileges > System**.

Once enabled, you can configure the ZENworks location details and OpenID information within the **Setup > AMIE > ZENworks** tab.

Defining ZENworks Settings

→ To define the ZENworks server information and OpenID provider details:

1. Go to **Setup > AMIE > ZENworks**.



2. Complete all the following fields:

AMIE	
General Settings	
Server Address	Address of the server hosting the ZENworks instance.
IP Field	By default within the AMIE mapping file, Field 4 within the **Details** tab of an item is used for the IP address (Network Address) of a device. You can edit this value if required.
OS Field	By default within the AMIE mapping file, Field 20 within the **Details** tab of an item is used to record the OS information of a device. You can edit this value if required.
OpenID Provider	

AMIE	
Name	Enter **ZENworks** as the OpenID provider name.
Icon	By default, the ZENworks icon that is available on the login page for customers and users accessing the system.
URL	The OpenID provider URL is automatically generated based on the **Server Address** when you click the **Save** button.

3. Click **Save**.

Reset Button

Click the **Reset** button for the system to generate a new certificate that allows the LiveTime to communicate with ZENworks. When selected, the system shows an information message providing the location details for downloading the new certificate.

Completing ZENworks Integration

To complete the ZENworks integration:

- Import customer and user details from the eDirectory authentication server
- Import Items using AMIE and ZENworks 11

When validating account details of users and customers accessing LiveTime, the system queries two locations for unique identifiers:

- Details in the GUID field imported from eDirectory for the customer or user
- The customer's or user's email address

Billing

The Billing module within LiveTime allows users to create invoices and purchase orders, as well as manage customer support contracts. This functionality exists to allow support organizations to charge customers for support services provided, and manage items purchased with service contracts.

When you enable the Billing module with purchase orders, the **Invoices** and **Purchase Orders** menus are available within the **Finance** tab of the User Portal. Purchase orders can simplify the tracking of where and when new items are purchased or leased. While this feature is not meant to replace an organization's existing PO system, it is designed to easily link a specific PO number (and its associated vendor and date information) with an item.

The **Invoices** section allows customers to be billed for products (in the form of items) or support services (through a prepaid contract or in arrears) that the organization provides to them. Users can create an invoice when a customer orders an item and service contract. Alternatively, users can create invoices for service contracts alone, as the item may already exist in the system.

Invoices can be generated through the following screens:

- Within the **Invoices** section
- When a request is created against an out-of-contract item
- When an item, customer, or organizational unit is created or edited to assign a new SLA

The billing options include the following:

- Purchase orders
- Contracts
- Invoices

Setting	Description
Enable Purchase Orders	Allows users to track items from the moment an order is placed to its delivery and implementation. POs cover leased and purchased Items.
Enable Invoices	Allow users to charge customers for support services and products. When you activate invoices, you must also enable contracts and/or chargebacks.
Payment Required	(This option is visible when invoices are enabled.) Setting **Payment Required** to **Yes** requires line items on invoices to be paid before they become active in the system. Users cannot work on any requests logged against an unpaid contract or item until payment is received. NOTE Only a finance user can process invoice payments.
Enable Contracts	Allows users to manage customer service agreements over a specific time period through the use of prepaid contracts.
Enable Chargebacks	(This option is visible when invoices are enabled.) Allows users to bill customers in arrears for support services after these services are provided.
Display SLA Prices	Enables SLA price fields to be visible in the **SLA Editor** screen. This setting allows the supervisor to allocate costs to SLAs and assists with the calculation of break even point costs for service items. This setting is automatically enabled when **Enable Invoices** is set to **Yes**. See SLAs for more information.
Tax Rate	(This option is visible when purchase orders or invoices are enabled.)

Setting	Description
(Percentage)	Enter the rate to calculate tax on an invoice subtotal.
Purchase Order Company Details	(This option is visible when purchase orders are enabled.) Enter any details related to your organization that you want to appear on purchase orders.
Request Warning TIme	(This option is visible when invoices are enabled.) When a customer has not paid a contract and has raised a request, the system can send a reminder email stating that payment is due. Use this field to specify the length of time in hours from the opening of the incident before sending a reminder email.
Request Cancel Time	(This option is visible when invoices are enabled.) Specifies a waiting time for requests with a status of **Pending-Unpaid** before they are cancelled.
Invoice Warning Time	(This option is visible when invoices are enabled.) Enter the number of days prior to the due date to send the customer a reminder email regarding non-payment of an invoice.
Default Invoice Due	(This option is visible when invoices are enabled.) Enter the number of days from the date of issue in which payment of an invoice is due.
Email Notifications	(This option is visible when contracts are enabled.) Enables the system to update finance users through automated emails regarding invoice and/or contract related matters.
Terms and Conditions	(This option is visible when invoices are enabled.) Enter any terms and conditions that you want to appear on invoices emailed to the customer.
Currency	Defines the currency that the system uses for all financial transactions.

Purchase Orders

Purchase orders (POs) can simplify the tracking of where and when new items are purchased or leased. While this feature is not meant to replace an organization's original PO system, it is designed to easily link a specific PO number (and its associated vendor and date information) with an item.

Enabling Purchase Orders

➔ To enable purchase orders:

1. Go to **Setup > Advanced > Billing**.
2. Set the **Enable Purchase Orders** option to **Yes**.
3. Set the default tax rate.
   - The percentage amount you enter here is applied by default to all POs.
4. Enter the company details to use in POs.
5. Select the preferred currency for POs from the **Currency** list.
6. Click **Save**.

> NOTE You can apply a logo to system-generated POs by adding the graphic within the **Setup > Customize** tab. (This option is only available when the purchase orders functionality is enabled within the **Setup > Advanced > Billing** tab.)

The **Purchase Order** menu is available within the **Finance** tab for finance, supervisor, and technician users, when you enable this functionality.

Contracts

A contract is made up of a service level agreement (SLA) and a service delivery period (start and end time). Contracts can be used to manage an entitlement to service from a start date through to an end date.

Contracts and invoices are used together when the Service Desk needs to charge its customers in advance for any support provided. In this case, billing within the system occurs on a per-contract basis.

Contracts can be created for different elements to suit organizational needs and can cover the following individual elements:

- Items
- Customers
- Organizational units
- Requests

Pending contracts are contracts that have a start date set in the future. They automatically become active on the contract start date or can be enabled manually.

Enabling Contracts

→ To enable a contract:

1. Go to **Setup > Advanced > Billing**.
2. Set the **Enable Contracts** option to **Yes**.
   - A **Contracts** tab becomes available.
3. Set the **Email Notifications** option for finance users.
   - When enabled, the system sends automated emails to finance users regarding matters relating to POs, invoices, and contracts.
4. Set the **Currency** for all financial transactions the system manages.
5. Select the **Contracts** tab and define the parameters for contracts.

Option	Description
Subscription	
Contract Renewal Time	The system can automatically send a contract renewal invoice before a contract expires. Enter the number of days prior to the contract expiration date for the system to send the renewal invoice. For contracts not to be automatically created, leave this field blank. (You can customize the information for the invoice in the **InvoiceSummary** template within the **Email Summary Templates** filter at **Setup > Email > Templates**. The system sends this template with the **InvoicePrefix** email, which you can edit in the **Email Content Templates** filter at **Setup > Email > Templates**.)
Default Contract Duration	The system sets the default contract renewal period to 12 months. You can adjust or delete the entry as required.
Time	

Option	Description
Low Time Alert	The system can automatically create an alert within the Customer Portal for customers that have time-based contracts (that is, they have purchased a quantity of support hours). The system can send the alert based on the percentage of hours that the customer has used.
Low Time Email	The system can automatically send an email to customers who are getting close to using all their support hours in their time-based contracts. The system can send the email based on the percentage of hours that the customer has used. You can customize the email content in the **ContractTimeLow** template at **Setup > Email > Templates**.
Expiration	
Time Expired	When a customer's contract is expired when a user is working on a request, this option specifies if the user can complete the request even though the contract has expired, and if the system should lock out the user until the customer has purchased additional time. If you select **Complete Request**, the following options are shown: • **Rollover** - The time used to resolve the issue will be subtracted from the customer's renewed contract. • **Ignore** - The time used to resolve the issue, even though the customer contract has expired, is not allocated to a future contract. (You can customize the subject line and content for the automated emails sent on contract expiration in the **ContractTimeElapsed** template at **Setup > Email > Templates**.)

6. Click **Save**.

Invoices

Invoices are used for the billing of prepaid (contracts) and postpaid (chargebacks) services, and can also be used for purchase orders. In addition, invoices can be used to maintain the purchasing of items as well as contracts for these and existing items.

When you enable invoices, you must also enable contracts and/or chargebacks.

→ To enable invoices:

1. Go to **Setup > Advanced > Billing**.
2. Set the **Enable Invoices** option to **Yes**.
3. Complete all the necessary fields.

Options	Description
Enable Contracts	Allows users to manage customer service agreements over a specific time period through the use of prepaid contracts.
Enable Chargebacks	Allows users to bill customers in arrears for support services after these services are provided.
Payment Required	Setting **Payment Required** to **Yes** requires line items on invoices to be paid before they become active in the system. Users cannot work on any requests logged against an unpaid contract or item until payment is received. NOTE Only a finance user can process invoice payments.
Note Time Unit	Defines the unit (in minutes) to record the time taken for entering notes in the system. Default value is **1**. If you use a unit other than the default value of 1 minute, automatic recording of time is disabled and users can manually specify the amount of time they spend entering notes, in the unit you specify here.
Tax Rate (Percentage)	The rate used to calculate tax on an invoice subtotal.
Request Warning Time	When a customer has not paid a contract and has raised a request, the system can send a reminder email stating that payment is due. Use this field to specify the length of time in hours from the opening of the incident before sending a reminder email.
Request Cancel Time	Specifies a waiting time for requests with a status of **Pending-Unpaid** before they are cancelled.
Invoice Warning Time	Enter the number of days prior to the due date to send the customer a reminder email regarding non-payment of an invoice.
Contract Renewal Time	The system can automatically send a contract renewal invoice before the end of a contract. Enter the number of days prior to the contract expiry to send the renewal invoice.
Default Invoice Due*	Enter the number of days to calculate an invoice due date.
Email Notifications	Enables the system to update finance users, through automated emails, regarding matters relating to POs, invoices, and contracts.
Terms and	Text in this field is included in the invoice emailed to the customer.

Options	Description
Conditions	
Purchase Order Company Details	This option is available if purchase orders option also enabled. Enter the company details to include in purchase orders.
Currency	Select the currency for all financial transactions within the system.

**Denotes mandatory field.*

4. Click **Save**.

Logging

Use the **Logging** tab when Absolute Global Support needs more detail about the system's behavior. Do not edit the contents of this tab unless Absolute Global Support instructs you to do so.

When required, Absolute Global Support will provide you with instructions to enable specific debugging output that may clarify certain system behaviors.

If you have been asked to edit a specific logger, first look for it in the **Logger Name** column. If it is present, select it and adjust the log level as instructed by Absolute Global Support. If the logger is not present, click **Add**, enter the name of the logger exactly as provided, set the log level, and click **Save**.

After your support case is resolved, it is recommended that you reset the logging back to its default behavior, either by reverting the logger you edited back to its original log level, or by removing the logger you created for the debugging exercise.

Single Sign On

When configured, single sign-on (SSO) allows customers and users who have logged on to their networks using their directory server authentication credentials to automatically access LiveTime without re-entering their login details.

SSO options are available for organizations that use HTTP header-based, single sign-on tools such as Active Directory Federation Services (AD FS), JOSSO, Shibboleth, or CA Single Sign-On (formerly SiteMinder). These tools work best with directory server technologies if you want to keep user account details synchronized. Since some of these tools rely on application server redirects to be implemented, you should check the documentation of your SSO provider for details on how to activate and use HTTP header-based single sign-on.

You can also choose to use an SSO solution based on Security Assertion Markup Language (SAML) authentication. LiveTime supports the version 2.0 specifications of SAML when used in conjunction with AD FS.

Enabling Single Sign-On

→ To enable SSO:

1. Go to **Setup > Advanced > Single Sign On**.
2. Click **Edit**.
3. Under **Single Sign On**, enable the **Active** option.
4. Complete all fields:

Fields	Description
HTTP Headers	
Session ID	Enter the name of the HTTP header that contains the SSO session ID. You can view all the headers by clicking .
Username	Enter the name of the HTTP header that contains the login of the user attempting to access LiveTime.
Email	Enter the name of the HTTP header that contains the email address of the user attempting to access LiveTime.

5. To view all session headers, click .
6. Click **Save**.

Configuring SSO Using SAML Authentication and AD FS

To use SSO with SAML authentication and Active Directory Federation Services (AD FS), ensure the following prerequisites have been met:

- LiveTime is deployed on a server that is Secure Sockets Layer (SSL) enabled
- Your AD FS server is properly configured and running
- Your Java Runtime Environment (JRE) contains the Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files

→ To configure SSO using SAML authentication and AD FS:

1. From your AD FS server, do the following:

- Export the AD FS token-signing certificate to an X.509 certificate file.
- Note the SAML 2.0 authentication endpoint URL.

2. Go to **Setup > Advanced > Certificates** and import the certificate you saved in step 1.
3. Go to **Setup > Advanced > Single Sign On**.
4. Click **Edit**.
5. Under **SAML Authentication**, enable the **Active** option.
6. If you have configured SAML authentication in the system previously and are reattempting the configuration, click **Reset SAML Certificates**.
7. Complete all fields:

Fields	Description
SAML Authentication	
IdP URL	Enter the SAML 2.0 authentication endpoint URL from your AD FS server.
IdP Certificate	Select the token-signing certificate you imported into the system.

8. Click **Save**.
9. Next to **SP Metadata**, select the **Download** link and save the metadata XML file associated .
10. From your AD FS server, do the following:
    - Add LiveTime as a new Relying Party Trust using the metadata XML file you saved in the previous step. Ensure the Relying Party Trust you created is using the SHA-1 secure hash algorithm.
    - Add the following claim rules to the Relying Party Trust you created:
        - Get Email (Send LDAP Attributes as Claims)
        - Email to Name ID (Transform an Incoming Claim)
        - Get Surname (Send LDAP Attributes as Claims)
        - Get Given Name (Send LDAP Attributes as Claims)

Single Sign Off

1. Determine the single sign off URL for the IdP
   Complete the Logout URL field appropriately

Fields	Description
Single Sign On	
Logout URL	Enter the SAML 2.0 logout URL from your AD FS server.

Social

To better track, capture, and respond to issues that customers may raise through social media platforms, you can enable social media integration within the Help Desk. Through the use of widgets on the Dashboard of the User Portal, this type of integration allows technicians to see what customers are saying about the organization in real time. When necessary, technicians can respond to customer feedback through social media or create a request in the system to address an issue, all from within the widget.

Before you can set up social media integration, you need the login details of the corporate social media account you are integrating with. This account's profile is the sender of all social media comments that originate from the Help Desk, not the individual technician's name.

After you set up social media integration, technicians can add widgets found in the Social category of the Widget Directory to manage feedback originating from social media.

Enabling Facebook Integration

➔ To enable Facebook integration:

1. Go to **Setup > Advanced > Social**.
2. From the **Social Media** list, select **Facebook**.
3. Set the **Facebook Enabled** option to **Yes**.
4. Select the **Please authorize LiveTime App by clicking here** link.
5. In the window that opens, log in to Facebook using the corporate account you want to integrate with
6. Follow the instructions for authorizing LiveTime to access the corporate public profile and post to Facebook.

   NOTE To ensure customers can read comments posted from the Help Desk, you must choose to share posts with the public when prompted.

7. After you have successfully authorized LiveTime, close the window.
8. On the **Social** tab, click **Save**.

Enabling Twitter Integration

➔ To enable Twitter integration:

1. Go to **Setup > Advanced > Social**.
2. From the **Social Media** list, select **Twitter**.
3. Set the **Twitter Enabled** option to **Yes**.
4. Select the **Please authorize Absolute by following this link then enter the pin number below** link.
5. In the window that opens, enter the login details of the corporate account you want to integrate with, and follow any instructions for authorizing LiveTime to access the corporate page and post to Twitter.
   - Be sure to note the PIN that Twitter has generated for you.
6. On the **Social** tab, enter the PIN from Twitter.

7. Click **Save**.

Certificates

If you are using a self-signed SSL certificate to secure web traffic for LiveTime, the **Certificates** tab allows you to import your certificate so that the system knows it can be trusted. This tab is visible when the **Accept All SSL** option is set to **No** at **Setup > Privileges > System**.

➔ To import a self-signed SSL certificate:

1. Go to **Setup > Advanced > Certificates**.
2. Click **New**.
3. In the **Host name** field, enter the address of the web server where your self-signed SSL certificate is installed.
4. In the **Certificate** field, enter the certificate's content.

   NOTE The certificate must follow X.509 standards and include the proper start and end markers. For more information, click the icon.

5. Click **Save**.

Configuration Management System (CMS) Tab

Within the ITIL framework, the Configuration Management System (CMS) includes the Knowledge Management Database (KMDB) and the Configuration Management Database (CMDB). Within the **CMS** tab, you can define elements that the CMDB uses, such as the terminology that describes item relationships and durations of warranties used by service contracts.

This tab also allows you to define parameters within incident management to implement proactive problem management.

NOTE The **Incident Analyzer** tab does not apply to the Help Desk edition of LiveTime.

Relationships

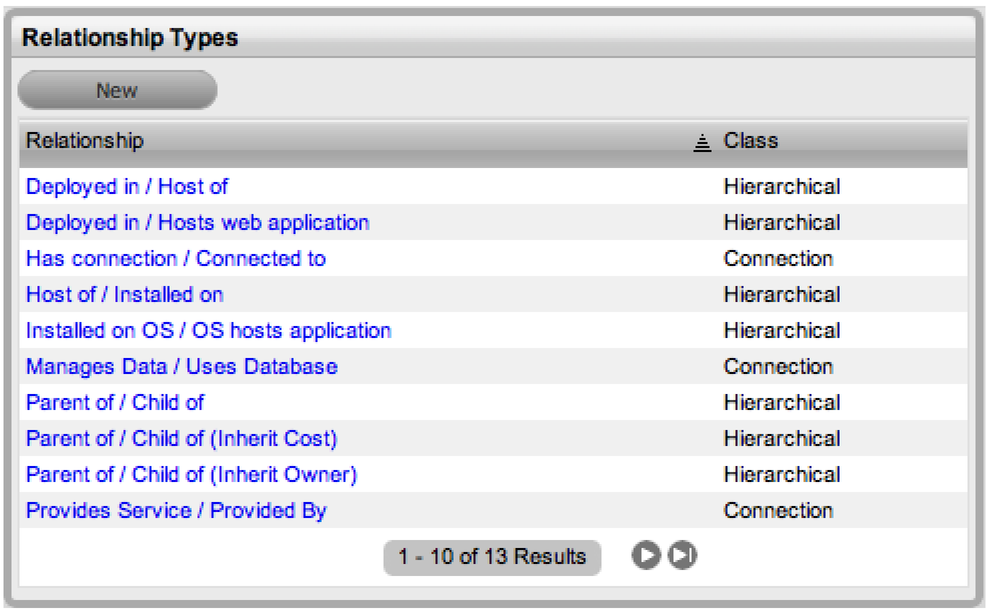
You can define relationships between configuration items in the CMDB to create a service catalog. The catalog allows users to assess the impact of a request on the organization. To build a catalog, you must define the relationships within the properties of a configuration item within configuration management.

To assist with the building of a CMDB, you can refine the list of relationship types available for the supervisor.

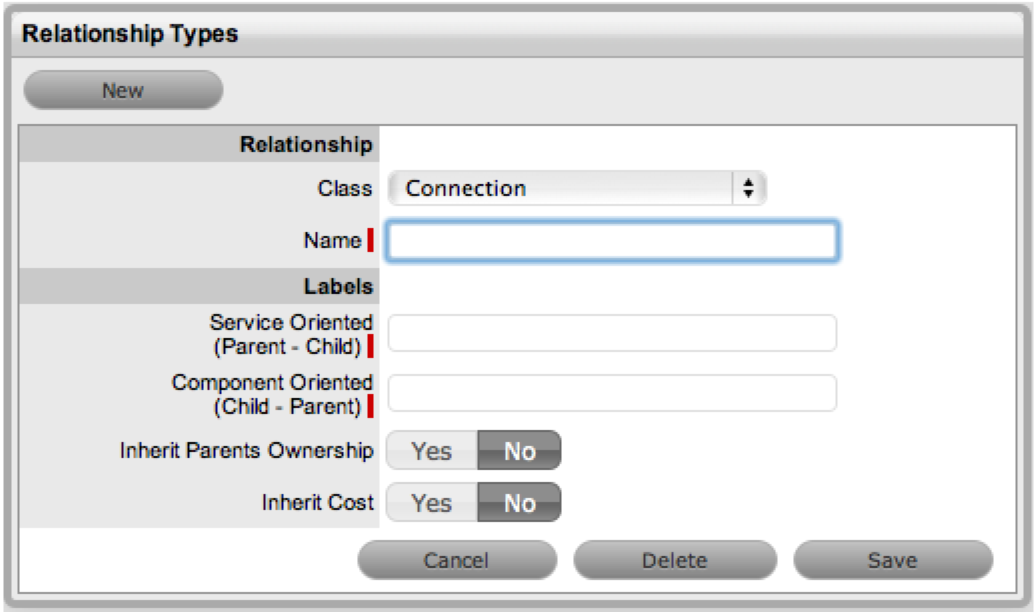
Editing or Creating Relationship Types

→ To edit or create a relationship type:

1. Go to **CMS > Relationships**.
   - The **Relationship Types** screen opens.



2. To edit, select an existing relationship, or to create a relationship, click **New**.



3. Enter or edit the fields as required:

Relationship Types	
Relationship	
Class	Select either a **Hierarchical** or **Connection** class. **Hierarchical** describes ownership, such as a parent/child relationship; for example, an operating system hosting an application. **Connection** defines a connection association; for example, an application accessing a database.
Name	Enter a name that reflects the nature of the relationship for both component or service views. For example, component view name = Deployed in/Host of.
Labels (each relationship between items can be described from a service oriented or component oriented view)	
Service Oriented (Parent - Child)	A service oriented view describes relationships top down with the service at the top. For example, the email provision service would be at the top level with relationships between configuration items described, ending at an individual user.
Component Oriented (Child - Parent)	A component oriented view starts from the bottom up, with the service being the top layer.
Inherit Parents Ownership	When this option is enabled, child items that use this relationship type inherit the parent item's owners.
Inherit Cost	When this option is enabled, child items that use this relationship type inherit the costs associated with parent item.

4. Click **Save**.

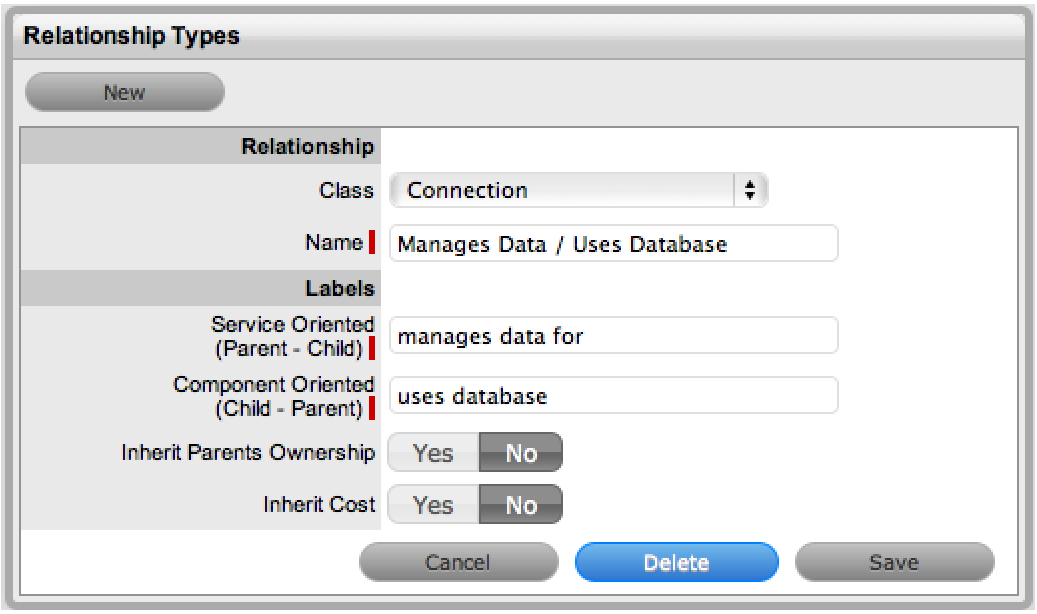
- The following table contains sample relationship labels:

Relationship Class	Relationship Name	Current Item	Relationship Label	Related Item
Service	Host of/Installed on	Application	is host of	Server
Component	Host of/Installed on	Application	is installed on	Server

Deleting a Relationship Type

→ To remove an entry on the **Relationship Types** screen:

1. Go to **CMS > Relationships**.
2. On the **Relationship Types** screen, select the relationship that you want to delete.
3. Click **Delete**.
   - A warning message is shown.



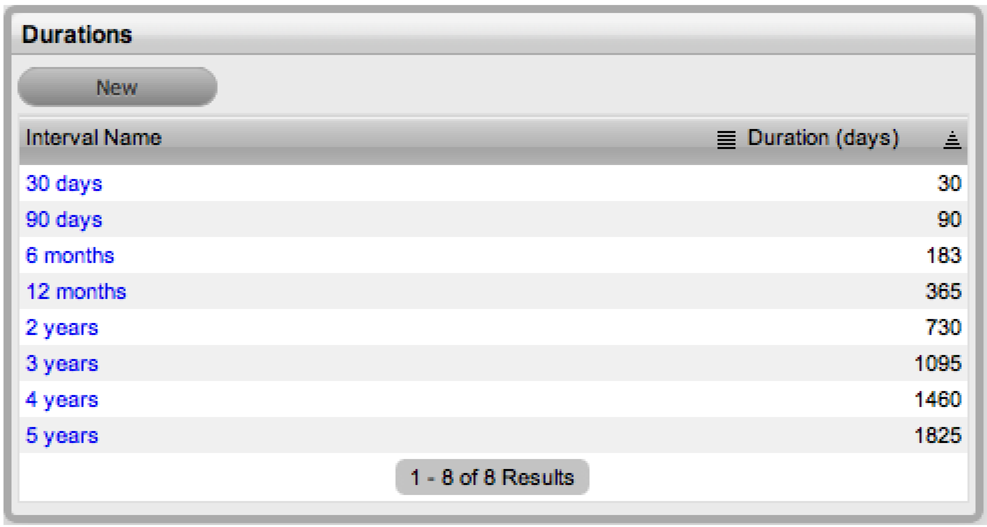
4. Click **OK** in the warning message.

Durations

Use the **Durations** menu to configure periods of time to use for warranty and lease durations. Durations are available as a list when a default warranty service level agreement (SLA) is assigned to an item type. The duration selected determines the length of the warranty period.

NOTE Within the User Portal, durations are available within the **Service** tab.

Within purchase orders, the lease durations are available when a PO is created for leased Items to specify the lease period.

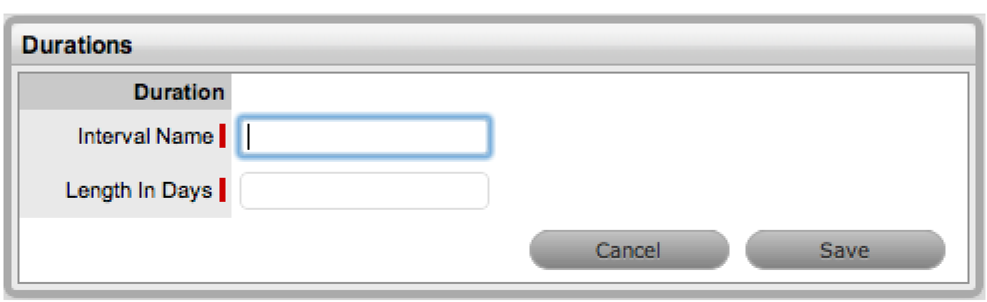


Within the **Durations** menu, a number of default durations exist. You can edit these durations or create new ones.

Creating or Editing Durations

➔ To create or edit durations:

1. Go to **CMS > Durations**.
   - (In the User Portal, as a supervisor, go to **Service > Durations**.)
2. Click **New** to create a new duration, or select an **Interval Name** to edit an existing duration.

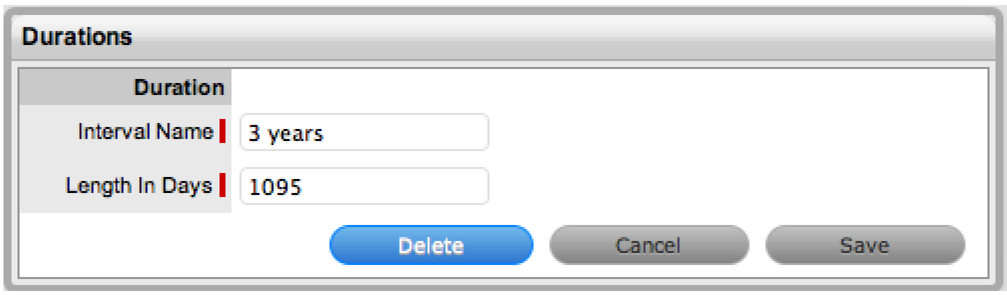


3. Enter or edit the interval name.
4. Enter or edit the time period for the duration.
5. Click **Save**.

Deleting a Duration

➔ To delete a duration:

1. Go to **CMS > Durations**.
2. On the Durations screen, select the duration that you want to delete.
3. Click **Delete**.
    - A warning message is shown.



4. Click **OK** in the warning message.

Incident Analyzer

Use the **Incident Analyzer** menu to set parameters that provide proactive incident and problem analysis. The Analysis Engine automates inter-process escalation between the incident management and problem management processes. The Analysis Engine automatically groups similar incidents into a problem based on the criteria you set in the **Incident Analyzer** tab. Also, the Analysis Engine is able to retrieve problems relevant to an incident and present them for consideration.

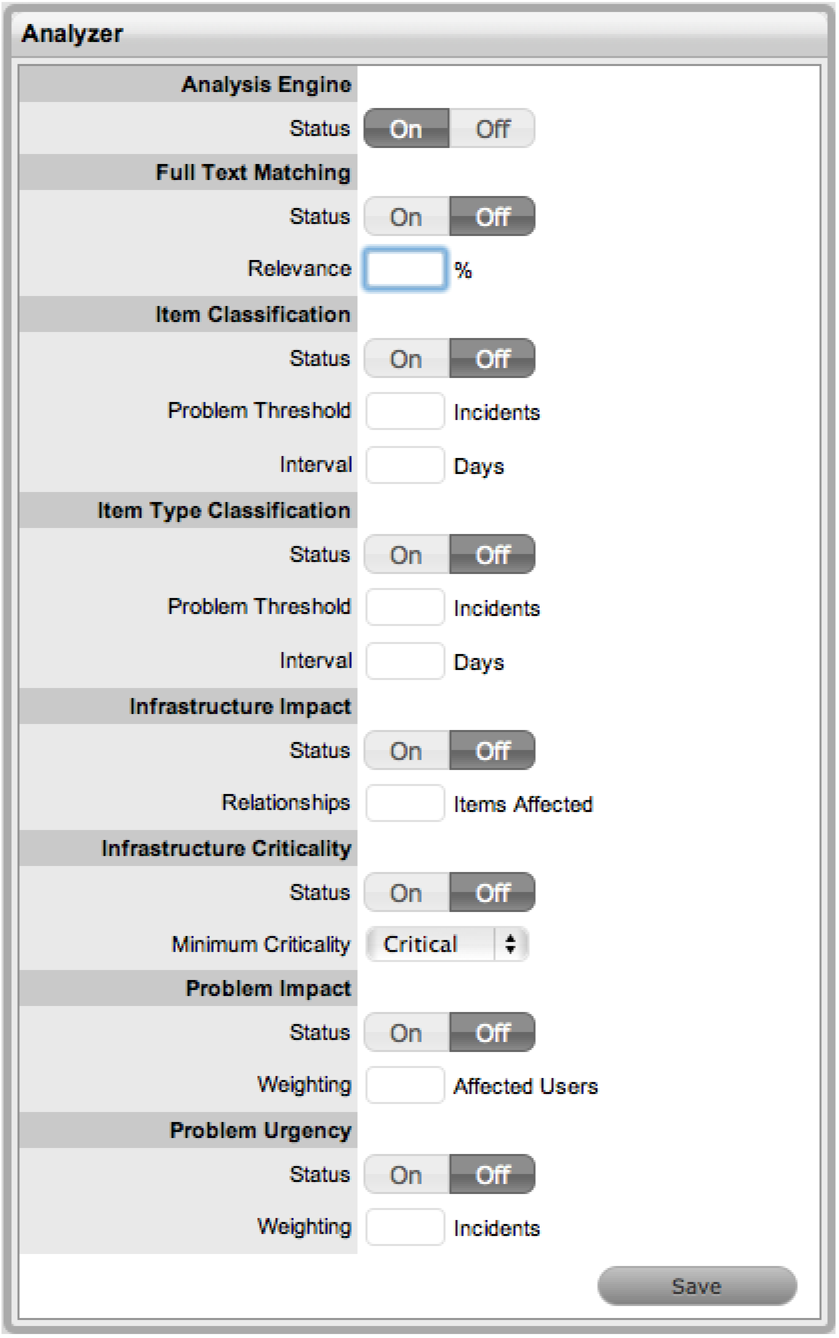
NOTE The **Incident Analyzer** menu is available if your LiveTime implementation includes problem management. The **Incident Analyzer** does not apply to the Help Desk edition of LiveTime.

A problem is used to manage a number of incidents related to one cause or incidents associated with highly critical items. Problems are managed through the problem management process.

Configuring the Incident Analyzer

→ To configure the Incident Analyzer:

1. Go to **CMS > Incident Analyzer**.
2. Set the **Analysis Engine Status** to **On**.



3. Enable the relevant Incident Analyzer functions.
4. Define the relevant parameters for the following options:

Field	Description
Full Text Matching	Searches for matching text between incidents and problems. The recommended **Relevance** percentage is between 75% and 80%.
Item Classification	Searches incidents based on matching the item and problem classifications. If the number of incidents entered in the **Problem Threshold** is met within the time

Field	Description
	Interval entered, the system creates a new problem.
Item Type Classification	Searches by matching item type and problem classification of incidents. If the matching number of incidents in the **Problem Threshold** for the time **Interval** is met, the system creates a new problem. NOTE You should use either **Item Classification** or **Item Type Classification** exclusively.
Infrastructure Impact	Automatically escalates an incident to a problem if the number of related items affected by the incident is equal to or greater than the value entered here.
Infrastructure Criticality	Automatically escalates an incident to a problem if an incident's item criticality is equal to or greater than the value selected here.
Problem Impact	Used to calculate the relevant impact rating that is assigned to an auto-created problem. The system multiplies by 4 the number entered in the **Weighting** field to get the required number of affected users to apply the highest problem impact of Severe. The system calculates the number of affected users on the number of owners attached to an item. An integer between 1 and 6 is recommended for **Weighting**.
Problem Urgency	Used to calculate the relevant urgency rating that is assigned to an auto-created problem. Applied when a new problem is created or an incident is added to an existing problem. The system multiplies by 4 the number entered in the **Weighting** field to get the required number of current incidents or problems to apply the rating of Urgent . An integer between 1 and 4 is recommended for **Weighting**.

5. Click **Save**.

Attachments

Use the **Attachments** tab to create a catalog of attachment types that allows users to classify files they upload as attachments.

File attachments can accompany a variety of elements within LiveTime, including service requests, incidents, problems, change requests, releases, configuration items, configuration types, SLAs, contracts, knowledge base articles, purchase orders, and invoices.

Because users can potentially upload a large number of file attachments in a variety of areas within the system, it is best practice to create a catalog that allows these attachments to be better organized and more easily identified. With this process in place, users can assign an attachment type to the file they are attaching at the point of upload.

→ To create a catalog of attachment types:

1. Go to **CMS > Attachments**.
2. Under the Details section, review the default catalog tree. Add or delete attachment types based on the requirements of your organization:
   - To add an attachment type, right-click the node under which you want to add the attachment type and select **Create** from the menu.
   - To delete an attachment type, right-click the attachment type and select **Delete** from the menu.

   NOTE You can also rename an attachment type by right-clicking it and selecting **Rename** from the menu.
3. To limit the availability of an attachment type to specific processes, right-click the attachment type, select **Process** from the menu, and ensure only the processes you want associated with the attachment type are checked.
4. To hide attachments that are associated with this attachment type within requests, right-click the attachment type and select **Hidden** from the menu.
   - When this option is enabled, files that are classified using this attachment type will not be visible on the **Attachments** tab of a request, unless the **Show Hidden Attachments** checkbox is selected on this tab. This checkbox is selected by default when the **Show Hidden Attachments** option is enabled at **Setup > Privileges > Requests**.
5. If you want to designate an attachment type as the default for a specific element (for example, **Additional Detail** for knowledge base articles), right-click the attachment type, select **Process** from the menu, then select the desired default element.

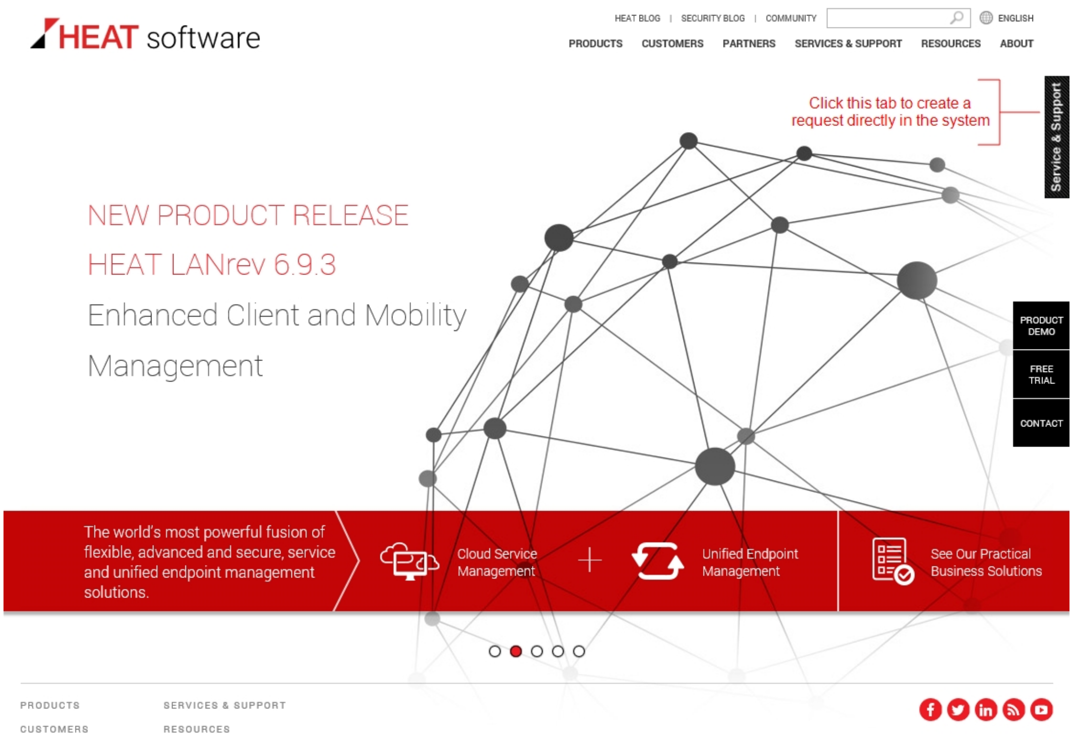
Embedding a Support Form

To embed a support form so customers can create requests directly from a website, add the following script, with an amendment to the "protocol" and "baseHost" details, to the target website page source:

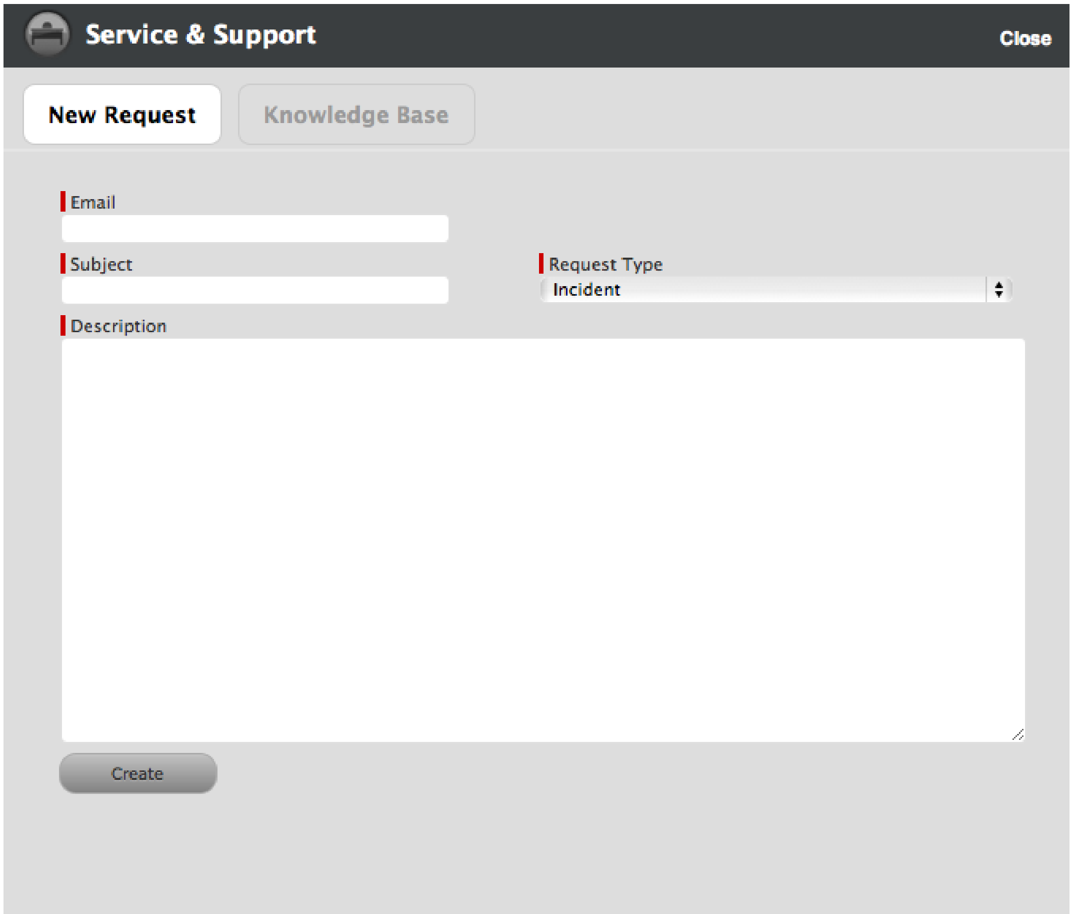
```
<script type="text/javascript" defer="defer">
var protocol = "https://";    // use "http://" if not running ssl
var baseHost = "servicedesk.mycompany.com";    // service desk hostname
document.write(unescape("%3Cscript src='" + protocol + baseHost + "/LiveTime/js/livetime.js'
type='text/javascript'%3E%3C/script%3E"));
</script>
```

In the above script, adjust the details for the "protocol" and "baseHost" to those of the server hosting LiveTime.

The following functionality is now accessible from your designated website:



The following is an example of the request form available for customers to complete:


Service & Support
Close
New Request
Knowledge Base
Email
Subject
Request Type
Incident
Description
Create

Configuring Email Polling and Request Creation

The email polling feature automatically manages incoming support requests through email, which helps organizations respond quickly and efficiently to customer inquiries and minimizes time-consuming data entry tasks for technicians.

Enabling Email Polling

By itself, the email polling feature acts as an auto-responder.

→ To enable email polling:

1. In the Administrator Portal, go to **Setup > Email > Server**.
2. Enter the server details.
   - These fields include the system accounts for the incoming and outgoing mail servers. If you are using Microsoft Exchange Server, use full email addresses for the system accounts in the **User Name** fields and ensure the **Authentication** option is set to **Login**.
3. Click **Save**.
4. Click the **Setup** tab.
5. Set the **Email Polling** option to **Yes**.
6. Enter a value in the **Interval** field.
   - This value specifies (in minutes) how long the system should wait between automated scans of the system email account. At the specified interval, the system automatically scans the inbox of the system email address for messages.
7. Define the remaining **General Settings**, **Requests**, and **Notes** fields:

Setup Tab Options	
General Settings	
Email Polling	Enable **Email Polling** to allow the application to check for new email received in the mailbox on the incoming server defined within the **Server** tab. For new messages that are received, the system sends a message to the sender acknowledging his or her message. You can customize system-generated messages within the **Setup > Email > Templates** tab. NOTE This option is locked to **Yes** if the **Create/Update via Email** option is selected.
Interval	Enter the time period (in minutes) the system uses to check the incoming server for any received messages.
Include Banner	Select **Yes** to include a banner within emails sent from the system. You can customize the banner at **Setup > Customize > Banners**.
Email Errors	When enabled, details of any system errors occurring while the application is running are sent to the development lab.
Copy Type	For emails sent within requests, define if the technician should be copied or blind copied on the correspondence.
Requests	
Create/Update	Select this option to enable requests to be created from emails addressed to the

Setup Tab Options	
via Email	system and to team addresses aliased on the email server. NOTE The **Email Polling** option is locked to **Yes** when this option is selected and the **Accept Anonymous** option is shown. To use this feature, you must also ensure that the **Incident** and **Service Request** options at **Setup > Privileges > Customer** are set to either **Create** or **Create and Edit**.
Accept Anonymous	When enabled, the system creates requests from emails received from email addresses that do not exist in the application's database. (See below for more information regarding this setting.)
Notify Alternate Team	When enabled, and if there is more than one team created for a process, the **Alternate Team** field is shown within the **Summary** tab of a request. Members of the alternate team are notified relative to the settings defined for the current team, and for new notes if **Technicians** is selected in the **New Notes** screen.
Self Mail	When set to **Yes**, new notes created by a technician or customer are also sent to them when they save the note.
Include Request Status	When enabled, the system includes the request status within the email subject line of any correspondence sent from the system regarding a request.
Include Request Priority	When enabled, the system includes the request priority within the email subject line of any correspondence sent from the system regarding a request.
Include Request Subject	When enabled, the system includes the content from the subject line of a request within the email subject line of any correspondence sent from the system regarding a request.
Notes	
Parse Instance Prefix	The instance prefix is used to process email correspondence from multiple instances. If this functionality is not required, set the option to **No**.
Default Recipients	Within the notes editor for requests, you can define the default email settings for the recipient groups. Define the groups who are more likely to be sent every new note created related to a request.
Default Locale	Set the default language to use for email correspondence. The option set here is applied to the **Email Locale** field in the **Customer Information** and **User Information** screens and can adjusted on a per account basis, as required. NOTE You can define the content for automated emails sent from the system for languages other than English within the **Setup > Localization > Content** tab.

8. Click **Save**.
9. Customize the content of emails that the system automatically sends within the **Templates** tab, including the Handshaking (CloseRequest), No Account, and Signature templates. Within the Prefix template, you can also edit the message prefix the system uses to recognize correspondence related to requests stored in the system.

If the **Create/Update via Email** option is not enabled, the system sends an automatic reply to the sender. This email informs the sender that requests cannot be received through email, and that he or she must use the Customer Portal to log a request. You can configure the content of this message in **Setup > Email > Templates**.

NOTE Before using the email polling feature, ensure that the main system email accounts inbox is empty. Otherwise, the system acts on any messages in the inbox either with an auto-response message to the sender the creation of requests for the messages, depending on the application's settings.

Use special caution if the main system email account is an IMAP account. Unlike POP accounts, messages generally are not removed from an IMAP server's inbox after they are read. Failure to clear out the inbox prior to using the email polling feature could result in auto-responses being sent to (or requests being created for) every message in the inbox.

Creating Requests Through Email

If the **Create/Update via Email** option is enabled, the system attempts to either create a new request or update an existing one each time a message arrives in the system inbox.

→ To activate this feature:

1. Go to **Setup > Email > Setup**.
2. Select the **Create/Update via Email** checkbox.
3. Click **Save**.
4. Go to **Setup > Privileges > Customer**.
5. Set the **Incident** and **Service Request** options to either **Create** or **Create and Edit**.
6. Click **Save**.
7. If all team members should receive a copy of the notification that a new request has been received, set the **Notify Alternate Team** option within the **Information** tab of the team.

To create a request using email, a customer with a pre-existing account can simply send an email message describing the issue to the appropriate team email address (refer to "Setting Up Team Aliases" below).

When a new message arrives, the system identifies the customer by matching the sender's email address against the addresses of customers registered in the database. If it fails to find a match, an email is sent to the sender notifying him or her to create an account before creating requests through email. You can configure the content of this message in the **NoAccount** template under **Setup > Email > Templates**.

If the system finds a matching customer account, and the address that the email was sent to belongs to an existing team, it automatically creates a request. The body of the email becomes the main text of the request description. Any attachments included with the email are also attached to the request. The new request is assigned a priority type of Medium, and uses the default Classification - General.

If the customer only owns a single item, the system automatically assigns this item to the request and runs the standard system SLA check of customer/organizational unit/item to verify which SLA should be assigned to the request.

If the customer owns multiple Items, the system can automatically assign the relevant item upon request creation if the customer prefixes the email subject with "Item #" followed by the item identification number as recorded in the CMDB. If the customer has an account in the system and is assigned as an owner of the item, the system refers to relationships and skills configured in the CMDB, resulting in the request being routed to the most relevant technician for the job.

In the case where the “Item #” is not included in the email subject line, and if the matching customer is assigned zero or multiple items, the new request uses the Unknown item and the system default SLA. The system assigns the request to the team or technician who supports the Unknown item. When the item is changed from Unknown to a specific item, the team or technician assigned may change based on the team configured to support the item. The system may also automatically reset the SLA as it applies the SLA derivation logic of Customer/Organizational Unit/Item to assign the relevant SLA.

After the system creates the request, it also adds an entry to the request audit trail stating the request was generated through email. The customer and the assigned technician then receive emails notifying them of the request number and details.

Monitoring Tools and Request Creation

For the system to automatically create requests from emails sent by monitoring tools, the monitoring tool must be created as a customer within the system. The email address the monitoring tool uses can be the system default support address or a specific team address (see "Setting Up Team Aliases" below). After the system creates the request, it adds an entry to the request audit trail stating the request was generated through email. The monitoring tool customer account and the assigned technician receive emails notifying them of the request number and details.

If the monitoring tool customer account is assigned to a single item, the system automatically associates this item with the request and runs the standard system SLA check of customer/organizational unit/item to verify which SLA should be assigned to the request.

If the monitoring tool customer account is associated with multiple items within the CMDB, the system can automatically assign a specific item upon request creation if the monitoring tool email prefixes the email subject with ‘Item #’ followed by the item identification number as recorded in the CMDB. In this situation, if multiple customers own the item and if the request is to be associated with a different customer after the request is created, technicians can update the customer details to move it from the monitoring tool customer account within the **Customer** tab of the request summary.

In the case where the “Item #” is not included in the email subject line, and if the matching monitoring tool customer account is assigned zero or multiple items, the new request uses the Unknown item and the system default SLA. The system assigns the request to the team or technician who supports the Unknown item. When the item is changed from Unknown to a specific Item, the team or technician assigned may change based on the team configured to support the item. The system may also automatically reset the SLA as it applies the SLA derivation logic of customer/Organizational unit/item to assign the relevant SLA.

Adding Notes Using Email

Managing requests through email is handled by the application sending its initial email with the subject line prefixed by the ‘Incident #’, or in the case of change management, prefixing the RFC subject line with ‘Change Request #’, followed by a series of numbers that make up the individual request identification number. Customers simply reply to this email and the system assigns their correspondence to the relevant request and uploads any attachments to their request. Technicians can also reply to these emails to update the request, if convenient.

When the note has been created, the system adds an entry to the request audit trail indicating that a note was added via email. The customer and assigned technician are then sent emails alerting them to the creation of a new note.

Setting Up Team Aliases

For an incoming message to result in the successful creation of a request, it must be addressed either to the main system email address or to an email account that is an alias for the main system account and assigned to an existing incident, change, or service request team.

For example, if your main system email address is support@yourcompany.com and you want to set up three teams – Team A, Team B, and Team C – those three teams should use email addresses that are aliases for support@yourcompany.com:

- teamA@yourcompany.com should forward messages to support@yourcompany.com
- teamB@yourcompany.com should forward messages to support@yourcompany.com
- teamC@yourcompany.com should forward messages to support@yourcompany.com

---

NOTE Consult the documentation that came with your mail server for information on setting up email aliases. If you are using Microsoft Exchange Server, you must create a distribution group for each alias you want to use, assign the email address of the alias as the group's name, and add the main system email address as a member within the group's properties.

Using this technique, any message that is sent to teamA@yourcompany.com, teamB@yourcompany.com, or teamC@yourcompany.com is automatically forwarded to support@yourcompany.com. The email polling mechanism then picks up those messages and responds accordingly. The resulting request is assigned to a technician within the team the message was addressed to.

An alternate configuration involves setting a single team's email address to the main system address, which bypasses the need for aliases but does not allow the system to funnel requests to specific teams.

Troubleshooting

If you have trouble setting up or using email polling and creation, keep the following tips in mind:

- For the request creation feature to work properly, both the **Email Polling** and **Create/Update via Email** options must be selected within the **Setup > Email > Setup** tab.
- Only emails sent to the main system address or to an alias that is currently in use by an existing team can be accepted.
- All pertinent information regarding the main system email address and the incoming and outgoing mail servers must be completed correctly.
- Ensure the customer sending the email has a valid email address within the system.

NOTE Only incidents, change requests, and service requests can be created via email. If a users attempt to send an email to a problem team, the system sends a reply email informing them that they must send their email to a different incident, change request, or service request team for their request to be logged with the system.

Extending the Application Using Web Services

The Web Services interface enables third party applications to interact directly with LiveTime in a secure and controlled fashion. The interface is based on the SOAP standard for Web Services. For more information about SOAP Web Services, please see http://www.w3.org/standards/webofservices/.

The system's Web Services interface is intended for developers to use to extend the application's accessibility and requires a basic familiarity with Java. For detailed information and instructions, please visit http://developer.livetime.com/developer/.

About Internationalization and Localization

Internationalization is the process of designing an application so that it can be adapted to various languages and regions without engineering changes. Sometimes the term internationalization is abbreviated as i18n, because there are 18 letters between the first "i" and the last "n".

LiveTime is an internationalized program that has the following characteristics:

- The addition of localized data that allows the same executable to run worldwide
- Textual elements, such as status messages and user interface (UI) labels, are not hard-coded in the program but stored outside the source code and retrieved dynamically
- Support for new languages does not require re-compilation
- Culturally-dependent data, such as dates and currencies, appear in formats that conform to the end user's region and language
- The application's localization resources are easily accessible

Localization is the process of adapting software for a specific region or language by adding locale-specific components and by translating text. The term localization is often abbreviated as l10n, because there are 10 letters between the "l" and the "n".

Overview of the Localization Process

LiveTime's internationalized framework is very intuitive and flexible, which allows you to localize it for a particular language and character encoding schema.

The primary task when localizing the application is translating the user interface elements in the external text file *LiveTime.properties.*

The following steps are a guide through the localization process. The example included assumes French localization of the application and uses the ISO-8859-1 character set.

1. **Ensure your desktop's operating system has the appropriate character set installed**
   - The localization file and rendering requires the character set to be available for data entry and data presentation.
2. **Ensure you create the relational database management system (RDBMS) using the appropriate character set**
   - This step is required so that French data entry can be successfully saved and retrieved from the database.
3. **Specify the correct character set encoding for the system**
   - Edit the 'Properties' file (located in the /CONTAINER_APPS_PATH>/LiveTime/WEB-INF/LiveTime.woa/Contents/Resources folder) and specify the character set to use for presentation to the end user. This character set is sent to the end users to control presentation in both the user interface and outbound email.
4. **Edit the UI strings in the external properties file**
   - The 'LiveTime.properties' file (located in the /CONTAINER_APPS_ PATH>/LiveTime/WEB-INF/LiveTime.woa/Contents/Resources folder) stores the externalized user interface content. The default format of the file is plain text with ISO-8859-1 character set encoding. You can create alternative versions of this file in any text editor that allows you to save using the character set you require.

- The first step in creating a local version of this file is to save a copy of it for the language you are localizing into. For this example of the French translation, there is no need to worry about the file encoding. Simply save a copy of the file called 'livetime_fr.properties'.
  Simple Messages
  The copy of this file consists of a collection of name-value pairs, with each broken up into clusters representing user interface components.
  For example:
  ClassName.greetings=Hello
  ClassName.farewell=Goodbye
  ClassName.inquiry=How are you?
  The 'name' or 'key' section (for example, "ClassName.greetings") of these strings is of little relevance to the end user except to note that if they are changed, the system is not able to look them up.
  The 'value' component of these pairs (for example, "Hello") represents the corresponding user interface value. The (French) translator can safely edit these values and they will appear within the system.
  ClassName.greetings=Bonjour
  ClassName.farewell=Au revoir
  ClassName.inquiry=Comment allez-vous?
  Compound Messages
  Compound messages contain variable that LiveTime substitutes into a message at run time. For example, in the message "Hello Sunshine", the string "Sunshine" may vary. This message is difficult to translate because the position of the string in the sentence is not the same in all languages, or alternatively, the application may need to generate the value based on some business logic.
  Where this substitution is necessary, the localized strings can have a set of braces containing an id number (known as a substitution variable). The system replaces these blocks at run time with the requested text. The localized version of a given string must contain the same number of substitution variables.
  For example:
  ClassName.helloSunshine=hello {0}
  This string renders as "hello sunshine"; however, we could modify the message to read "sunshine, hello" by doing the following:
  ClassName.helloSunshine={0}, hello

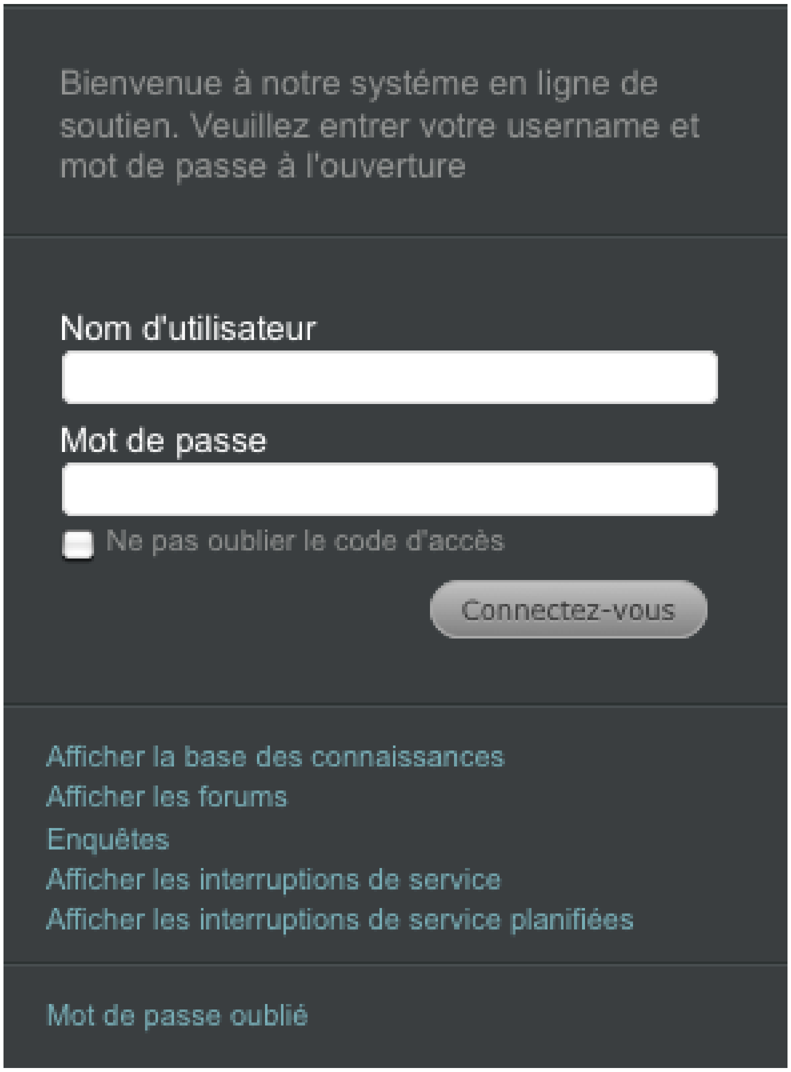
5. **Edit the locale definitions file**

- The 'LiveTimeLocales.xml' file (located in the /CONTAINER_APPS_ PATH>/LiveTime/WEB-INF/LiveTime.woa/Contents/Resource folder) defines the language code and character set used to process the strings defined in the external properties file.
- Typically, this character set is the one you used when saving the external properties file. By default, the following language locale is selected:
- <LOCALE language="en" country="" charset="ISO-8859-1"/>
- To enable the French external properties file to behave correctly, comment the above line and uncomment the following line:
- <LOCALE language="fr" country="" charset="ISO-8859-1"/>
- For convenience, the file already contains many different values so it is just a matter of uncommenting the necessary entry.
- If an entry for your locale language does not exist, you can define it in the file by supplying the language code, country code, and character set, as illustrated in the above examples.

6. **Ensure all file names are correct**

- The names of the localized files follow a standard. In the French example, "livetime_fr.properties" was the resulting file name. The 'fr' component of this name comes from the ISO 639-1 standard. A full list of these codes is available at http://www.loc.gov/standards/iso639-2/php/English_list.php.

Example of the login page translated:



Supported Platforms for Database Mapping

The **Setup > AMIE** tab allows you to import items from an external asset management database using database mapping (AMIE) or using a CSV file.

You can use database mapping with AMIE in conjunction with common asset management systems, including:

- Centennial Discovery 2005, 9
- Express Software Manager 9.0, 9.5
- HEAT LANrev 6.9+ / Absolute Manage 6.0+ / LANrev 5.1
- HP Universal CMDB 8.0
- LANDesk 8.5, 9.0, 9.0 (Hardware)
- LiveTime Discovery 2005, 2007
- LOGINventory 4.3
- Manage Engine Desktop Central 7.0
- Microsoft SMS Version 2003 SP1
- Microsoft SCCM 2007
- Spiceworks 4.0+
- ZENworks Asset Management 6.5+
- ZENworks Configuration Management 11.1, 11.1 (Hardware)

If your organization manages items externally, you can still easily import them into LiveTime by using a CSV file. For more information, see the following topics on importing items:

- Managing Items Using Database Mapping (AMIE)
- Managing Items Using a CSV File